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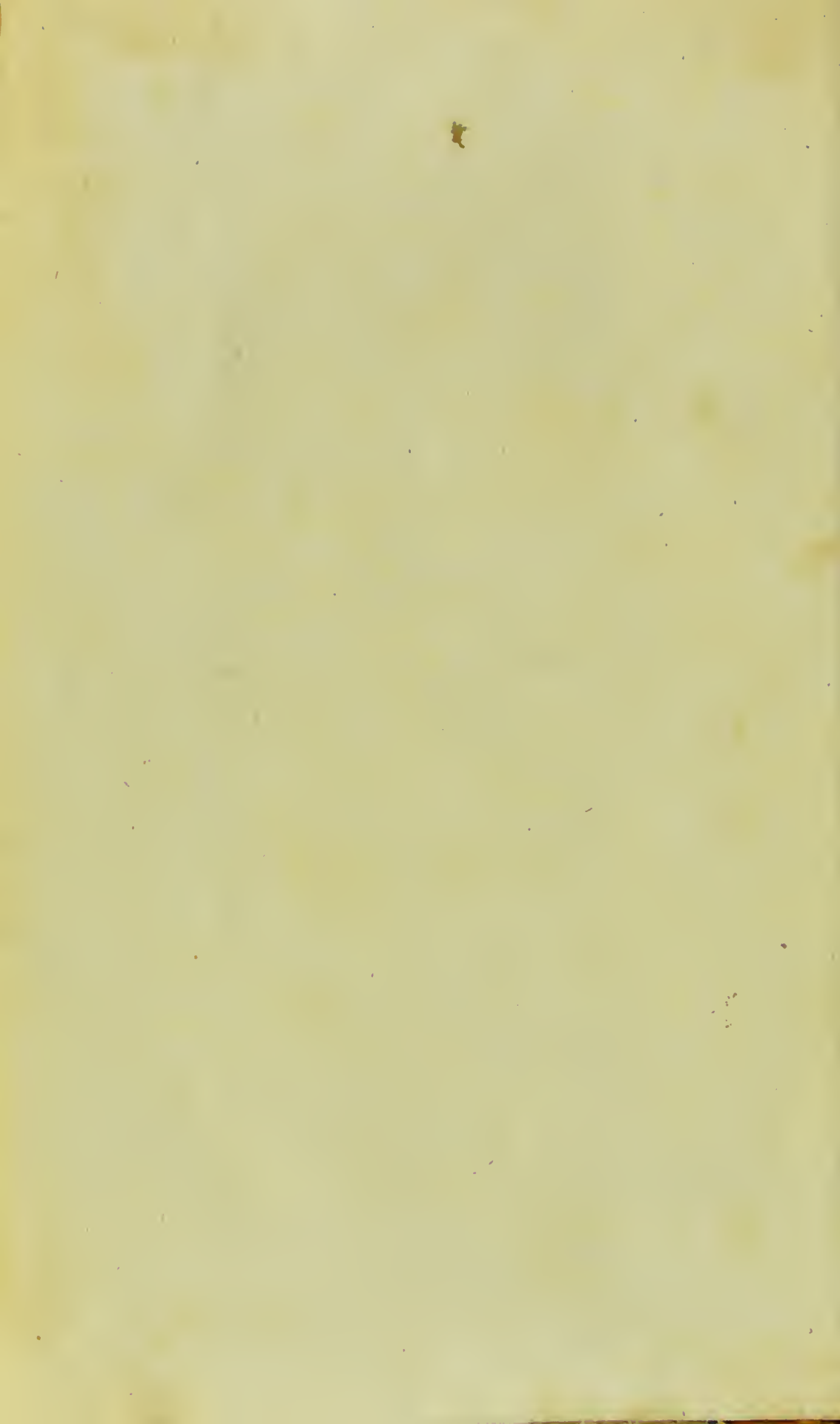
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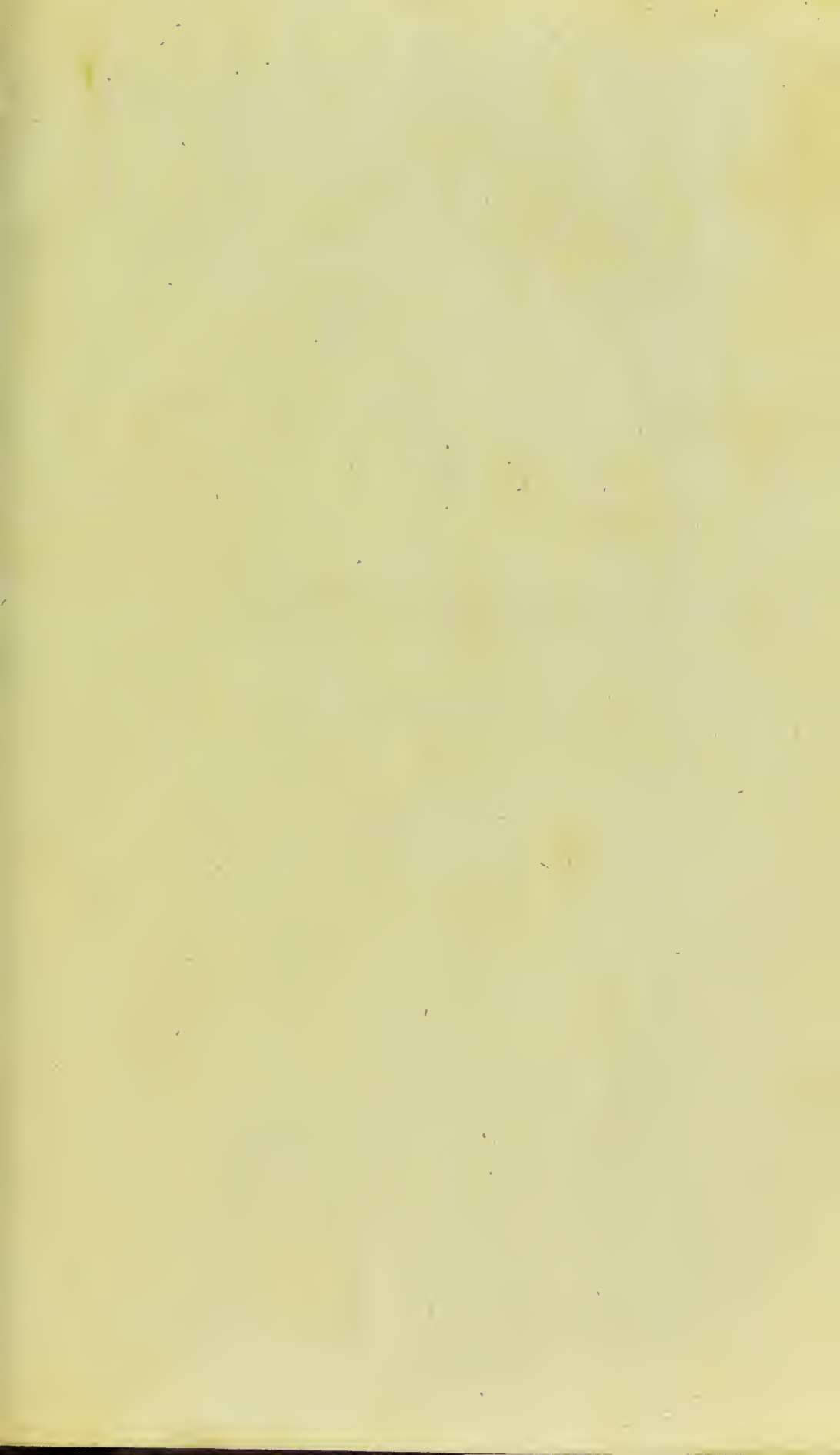
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MEDICAL FACTS

AND

OBSERVATIONS.

VOL. I.

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MEDICAL FACTS

AND

OBSERVATIONS,

VOLUME THE FIRST.

L O N D O N :

PRINTED FOR J. JOHNSON, N° 72, ST. PAUL'S CHURCH YARD.

M, DCC, XCI.

P R E F A C E.

THE present Collection of Facts and Observations is intended as a sequel to the London Medical Journal. The indulgent manner in which that work was received by the Public, and the numerous and valuable Communications with which the Editor was favoured by his Correspondents, induced him to persevere in bringing it out, at stated quarterly periods, much longer than well suited his other avocations. But that mode of publication having at length been attended with great inconvenience, both to his professional engagements and to

the deliberate management of the work, he became desirous of conducting his future labours in a way more convenient and satisfactory to himself.

He was aware, that, by making such an alteration in the plan of the Journal as might enable him to continue it at his leisure, he should retain the advantages which an established work might be expected to have over a new undertaking; but the respect he owed to his readers (many of whom might, perhaps, have considered any farther change in the mode of publication as too great a deviation from his original plan) induced him rather to bring the London Medical Journal to a conclusion, and to begin a new Collection, the arrangement of which, so far as should relate to the periods of publication, might be better adapted to his other avocations.

The

The London Medical Journal accordingly ended with the eleventh volume; and the present Collection of MEDICAL FACTS AND OBSERVATIONS is offered to the Public in its stead. The object of this new work, like that of the Journal, will be to contribute to the improvement and diffusion of medical knowledge; and, like that, it will consist of papers communicated by Correspondents, and of materials collected from the Transactions of learned Societies and other printed works.

This method of blending original observations with materials collected from books seems to be the most proper for a work of this kind, which, while it serves to excite a spirit of inquiry, and records interesting facts, is intended to comprise accounts of every important discovery and improvement that shall be made in medical science.

The

The great Lord Bacon, who complained, with too much reason, of the few additions made to their art by the medical writers of his time*, recommended Collections of Facts and Observations as the best means of improving the practice of physic†; and it is to the method of investigating philosophical truth, by induction from accurate experiments, which he so admirably inculcated, that we are, in a great measure, indebted for that attention to facts by which medical science, in common with every other branch of natural knowledge, hath, since the days of that truly illustrious philosopher, been so much improved.

There is, perhaps, hardly any well-informed person, engaged in the practice of physic or surgery, to whom opportunities do not now and then occur of adding some-

* De dignitate et augm. Scient. lib. iv. cap. 2.

† Ibid.

thing to our knowledge of diseases; or whose mind, from attentive observation, may not lead him to suggest some improvement in the modes of treating them: and when it is considered that many ingenious men may be willing to communicate the result of their experience, in a concise and familiar form, who have not leisure or inclination to compose a more elaborate work, the utility of a Collection, like the present, which is open to detached facts and observations, on any medical subject, will, it is presumed, be sufficiently obvious.

The Editor flatters himself also, that by continuing, as in the Journal, to collect a part of his materials from books he shall render an acceptable service to the reader. The channels of medical information are now so numerous, and in so many different languages, that many important observations

vations probably remain for a long time unknown to persons who are busily employed in the practice of physic, and to whom, of course, they would be the most interesting, but who have not sufficient time or opportunity to consult the several works in which they are to be found.

This remark seems to be more particularly applicable to the Transactions of learned Societies, which, on account of their bulk and price, or the variety of subjects, not immediately connected with physic, of which they treat, are, comparatively speaking, in the hands of few medical readers, although they frequently contain papers with which this class of readers cannot but wish to be acquainted. To collect from such publications, either entire or in an abridged form, the more important observations, relative to the practice of physic and

to medical philosophy, which they contain; seems likely, therefore, to be of considerable utility; and for the reasons, just now given, the Editor intends also to have recourse, occasionally, to other printed works, but without professing to give a general review of new medical books. Of these, however, a catalogue will be inserted at the end of each volume.

The Editor proposes to bring out a part of this Collection as often as he shall have got together materials sufficient to fill about fifteen sheets in octavo; a volume of this size, as it will enable him to make the periods of publication more frequent, seeming to be better calculated for the purposes of the work than one of greater bulk.

Communications for this work may be addressed to DR. SIMMONS, Poland Street, London.

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MEDICAL FACTS

AND

OBSERVATIONS.

I. *Case of Hydrophobia; with the Appearances on Dissection. Communicated in a Letter to Samuel Foart Simmons, M. D. F. R. S. by John Ferriar, M. D. Physician to the Infirmary at Manchester.*

ON Friday morning, December 3, 1790, I was desired to visit John Johnson, recommended as a home patient of the Infirmary, who was said to have been bitten by a mad dog.

I found him in a tremulous, irritable state, with a weak, irregular pulse, and a white tongue. His eyes looked wildly; he was fearful of every unexpected noise, and seemed to be continually on the watch against surprises. When interrogated respecting his complaints,

VOL. I.

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he

he gave a long detail of pains in his chest, cough, and difficulty of breathing; but was unwilling to mention his dread of water. He owned that, a considerable time before, he had been bitten in the left cheek by a strange dog, which leaped at his face in passing while he was at work in the street. The accident affected him so little, that the precise date of it had escaped his memory. He guessed it to have happened more than three months ago. Since that time he had been twice afflicted with complaints supposed to be pleuritic, which were removed by bleeding, blistering, and other remedies, of which he could give no account. He had been bled twice within the last week, and had a blister on the left side of the chest when I saw him.

On Monday, November the 29th, in the evening, his wife had observed, for the first time, that he swallowed some gin and water with reluctance and difficulty; the uneasiness in swallowing liquids soon became his principal complaint, but the bite was not recollected till Thursday evening; when a medical gentleman, who was applied to, inquired whether he had ever been bitten by a dog. Even then he recollected the circumstances but imperfectly. He
got

got down solids with great ease during the whole complaint.

When I desired him to drink a little water, he shewed strong marks of disgust, but, recollecting himself, said he would try; that he did not believe the dog to have been mad, (an idea in which I encouraged him), and that he was not afraid of water. As soon as he touched the cup, I perceived some spasmodic contractions of the muscles of deglutition, and when he raised it towards his mouth the muscles of the cheeks were strongly contracted, and a sort of convulsive gulping was very frequently repeated. After one or two unsuccessful attempts, he swallowed a small quantity of water, but with a violent struggle, succeeded by universal tension; and he would not be persuaded to make another trial.

He complained that cold air affected his throat with a similar uneasiness; and when asked where the impression was felt, pointed to his throat, immediately under the thyroid cartilage. The opening of the door always made him complain.

His discourse was somewhat incoherent, and he frequently referred, with some degree of terror, to the circumstance of the bite.

By his wife's account, he had been a sober, industrious man; abstemious with respect to food; and addicted to no practices likely to pervert his imagination. His age was thirty-nine; his evacuations were in a natural state.

The scar on his cheek, which was between the ear and the angle of the jaw, but rather more advanced, was hardly discernible: his wife remembered to have seen it bloody. I had him removed to the Hospital as soon as possible, that he might enjoy every advantage of attendance; and till I could have the satisfaction of consulting with my brethren, ordered him to take a bolus, containing a scruple of bark, six grains of musk, and half a grain of opium: he was immersed in the cold bath, and was directed to swallow, as often as possible, a portion of a mixture of vinegar and water.

After his removal, as his wife had informed me that the sound of water distressed him, I directed some to be poured out in the passage adjoining to his room. He started at the noise, looked wildly round, begged to be sent home, and said he was not afraid of water.

At five o'clock in the afternoon we met in consultation, when the horror of water, and difficulty

difficulty of swallowing it, were ascertained in presence of all the physicians to the house.

We agreed to scarify the cicatrix on the cheek deeply, and to apply a blister over the incisions: a bolus, containing a scruple of bark, fifteen grains of musk, and two grains of opium, was directed to be given every four hours; two drachms of strong mercurial ointment were applied to the throat, arms, and groins; a mixture of eight ounces of distilled vinegar, and twelve ounces of decoction of bark, was ordered, of which three or four table-spoonfuls were to be given as frequently as possible; and a poultice, consisting of three drachms of galbanum, two scruples of opium, and one drachm of camphor, was applied, after the mercurial friction, to the throat.

About nine o'clock the same evening I saw him again. He had swallowed his medicines without much reluctance, but was more incoherent, and complained greatly of cold.

During the night his delirium increased: he was very restless, impatient, and intractable. He threw himself out of bed repeatedly, and with his nails scratched the hand of one of the keepers who attempted to replace him. However, he took four boluses, and swallowed more

than a pint of his mixture. He had one stool before morning.

At nine o'clock on Saturday morning, December 4th, we met again in consultation. We found that his difficulty in swallowing liquids was less: he had taken some very thin porridge, the usual breakfast of the house; and he drank several draughts of his mixture, without any striking appearance of disgust, in our presence; but his eyes were heavy, and inclined to fix, his pulse much sunk, and there was a constant tendency to low delirium. We, therefore, concluded that the termination of the disease approached; but directed that the plan we had agreed on should be pursued as long as he should be capable of swallowing. Before I left him he retched several times, and brought off some wind: half a grain of emetic tartar was directed to be added to his next bolus, but he did not live to take it. At a quarter past ten he swallowed some of his mixture, and immediately after threw up a part of it again. He then fell into convulsions, and died in the course of a few minutes.

I was very desirous of examining the body as early as possible, that the appearances attending this dreadful disorder might be fairly ascertained;

tained ; the inflammation of the stomach, described in former dissections, having been often attributed to the action of the gastric juice. Accordingly, the body was opened by Mr. Simmons, at a quarter before three o'clock on Saturday afternoon, in presence of most of the physicians and surgeons of the hospital.

In the brain, which was the part first examined, the only preternatural appearance was a distention of the pia mater, on both hemispheres, with a limpid fluid. The quantity of water in the lateral ventricles, at the basis of the brain and round the spinal marrow, appeared to be somewhat unusual. The lungs were uncommonly found, excepting one slight adhesion at the posterior part of the left lobe. The trachea was perfectly found. The pericardium adhered pretty firmly to the heart in its whole compass. The stomach and intestines seemed, externally, sound; but on opening the œsophagus a morbid appearance presented itself. About two inches above the cardia the epidermis of the œsophagus was abraded in irregular points, and exposed an inflamed surface of a dark red colour : still lower, the abrasions became linear, and extended into the stomach itself. The edges of the epidermis, surrounding the abrasions, were unequal,

and elevated. A similar affection was traced along the lesser curvature of the stomach, but fainter in its progress to the pylorus, where it was least discernible, and about which it seemed to terminate. The whole of the inflamed parts bore a striated appearance, darkest in the œsophagus, and lightest and more indistinct towards the pylorus. The stomach was half full of a dark-coloured fluid, which smelt strongly of musk. The other viscera were in a natural state.

As no more than four hours and a half elapsed between the patient's death and the dissection, I believe the abrasion observed may be fairly considered as the effect of the disease, especially as the stomach contained a considerable quantity of fluid; but although the preternatural irritability, produced by this specific inflammation, completely explains the peculiar sensibility to cold water and cold air, yet the dread of water, though constituting the diagnosis, can only be regarded as *the symptom of a symptom*. The local inflammation, even when considered in connexion with the slight effusion visible in the brain, is very inadequate to the explanation of the patient's death.

The

The relief from the difficulty of swallowing liquids, observable towards the close of this case, is not a solitary instance; the disease has even been said to exist without any horror of water, or difficulty of receiving it into the stomach*.

The case with which solids were swallowed by our patient admits an obvious explanation. In the irritable state of the œsophagus, the comparatively small degree of contraction necessary for the descent of solid food, is performed without difficulty. For the deglutition of liquids a very strict contraction is required, which strains and irritates the inflamed parts, and consequently occasions great distress.

Little information respecting the practice in hydrophobia can be drawn from this case; yet if other observations should confirm the opinion, that a peculiar inflammation exists in the stomach and œsophagus, in all instances of this disease, I conceive that some measures should be taken to counteract it, though it appears to be only a symptom of the general disorder. Blisters applied to the throat, or between the

* See Mead's works; Lieutaud, *Precis de la Med. prat.*; and some late articles in the newspapers:

shoulders,

shoulders, might be useful; and if another similar case should unhappily occur to me, I should certainly employ them. Our patient had a recent blister on his side.

Lieutaud* enumerates very extensive appearances of inflammation and suppuration in the stomach and bowels of hydrophobic patients discovered on dissection, and other writers have mentioned inflammation of the stomach, in such cases, in general terms; but perhaps ours is the most satisfactory examination yet obtained, on account of its nearness to the death of the patient. Lieutaud mentions the adhesion of the pericardium to the heart, among other appearances.

I should conceive blood-letting to be a very ambiguous remedy in this complaint: with us it was prohibited by the state of the pulse, the advanced period of the disease, and the free use made of it a few days before by the patient.

The large use of mercurial frictions is said to have been successful in hydrophobia. It has perhaps been suggested by the determination to the salivary glands, so remarkable in the course of the disease. I own I have some

* *Precis de la Medecine pratique*, Tome II. p. 92. 8vo.
Paris, 1777.

doubts respecting the propriety of using a remedy which produces so great a degree of irritability in the state of high irritation attending hydrophobia. The appearance of the inflamed parts approaches to the erysipelatous state; and the whole train of symptoms seems to require the aid of the cold bath, and the free use of bark and opium.

Manchester,

December 12, 1790.

II. *Some Observations on the Prevention and Treatment of Hydrophobia. Communicated in a Letter to Dr. Simmons by Mr. William Looftie, Surgeon at Canterbury.*

ABOUT two years since a poor man applied to me who had been bitten, both on the leg and arm, the day before, by a dog that died mad, after having bit two other dogs which were immediately killed.

The wounds were small; that on the arm was about two inches above the wrist, and only one of the dog's teeth had penetrated: the other, on the tibia, was more considerable; here were the marks of two teeth.

In

In this case nothing was done till the time of his application to me, (twenty hours after the accident) when I dissected out the bitten parts, taking off a piece of the integuments, of about the size of half a crown, and removing every part that had been even touched by the teeth.

Lint, dipped in a strong solution of corrosive sublimate, was applied to the parts, which were moistened at times with the same.

The next day, the arm and leg being much inflamed, an emollient cataplasm was applied over the dressings, and the patient was directed to take some Glauber's salt.

On the third day the dressings were removed, a large eschar was then formed, and there was a considerable discharge from the wound.

From this time the slough came off daily, and the wound discharged a laudable pus.

On the eighth day the patient complained that his mouth and gums were swelled ; which must have been owing to absorption of the corrosive sublimate, as no mercurials were given internally.

The purging salt was occasionally repeated, and the wounds were kept open for seven or eight weeks, when they were suffered to heal ; and the patient has continued well ever since.

From

From every circumstance I have no doubt that the dog by which this person was bit was mad; and I cannot help thinking that the patient's escape was entirely owing to the removal of the parts bitten, and keeping the wounds open so long.

Since that time another case of the same kind has fallen under my care, which I treated in a similar manner and with equal success; but in this the certainty of the animal being mad was not so clear.

Two cases are related by Mr. Foot* of excision being attended with success, in one of which the distance of time, between the bite of the dog and the extirpation of the part, was from thirty-two to thirty-five hours; and in the other, sixty-eight hours. Such instances as these, and the first of those which I have related from my own experience, evidently prove the usefulness and necessity of extirpation; and indeed I have long been of opinion, from all I have heard and read on the subject, that nothing less than the complete excision of the parts bitten can be relied on, with any degree

* An Essay on the Bite of a Mad Dog. 8vo. London, 1788.

of certainty, as a means of prevention in these unfortunate cases.

In too many instances, however, either from the number and situation of the wounds, or from the fears of the patient, we shall be obliged, perhaps, to content ourselves with destroying the parts bitten by caustic, which is certainly the best substitute for extirpation, though it has sometimes failed of success even in the ablest hands*.

The cases, by M. Sabatier, you have favoured me with from the Memoirs of the Royal Academy of Sciences at Paris for the year 1784, are strongly in point, and confirm the necessity of destroying the wounded parts. With your leave I will copy them. — “ On the 27th of
 “ February, 1784, a dog, kept by way of safe-
 “ guard in a lone house, bit the gardener be-
 “ longing to the house in the upper lip. The
 “ wound was dressed in the common way, and
 “ nothing more was done. The next day the

* See the case of Master Rowley, as communicated by John Hunter, Esq., to Dr. Hamilton, and inserted by the latter in his Remarks on the Means of obviating the fatal Effects of the Bite of a Mad Dog, &c. 8vo. London, 1785, page 211.

“ same

“ same dog, which had been shut up, but with-
 “ out being supposed to be mad, flew at a
 “ young man, who went to carry it some vic-
 “ tuals, and bit and scratched him in several
 “ places. The dog was immediately killed.
 “ Twenty-eight hours after the accident M.
 “ Sabatier applied liquid butter of antimony to
 “ the wounds, which were more or less confi-
 “ derable, and twenty-five in number, and to
 “ the scratches, of which he reckoned fifty.
 “ The most considerable were in each hand
 “ and fore arm, in the right shoulder, and in
 “ the left leg. These were kept open a confi-
 “ derable time, and the patient did well; but
 “ the gardener, who thought himself safe, and
 “ would not believe the dog had been mad,
 “ began, on the 14th of April, fifty-five days
 “ after the accident, to lose his appetite; the
 “ day following he complained of a pain in
 “ the wound, of a severe oppression at his sto-
 “ mach, and of a desire to vomit. The symp-
 “ toms of hydrophobia came on the same day.
 “ He was carried to the Hotel Dieu at Paris,
 “ and died on the 16th.

“ M. Sabatier relates another case, which
 “ happened in 1775, of a soldier, bit also by a
 “ mad dog, where the caustic was applied
 “ with

“ with success; while another man, who had
 “ been bitten by the same dog, was seized
 “ with hydrophobia on the fifty-second day,
 “ and died in twenty-four hours.”

The method proposed by Dr. Haygarth,
 “ of washing the wound with cold water, not
 “ slightly and superficially, but abundantly,
 “ and with the most persevering attention; in
 “ bad cases for hours; and after a plentiful
 “ affusion of cold water, but not sooner, apply-
 “ ing warm water*,” is highly commendable
 for its simplicity, and cannot be too much
 known and inculcated, as it promotes the wish-
 ed-for design, and gives time for medical as-
 sistance.

The method you have been so good as to
 communicate to me, as proposed by Professor
 Mederer, of Fribourg, and which consists in
 washing the wound thoroughly, first with a di-
 lute solution of lunar caustic in water, (in the
 proportion of thirty grains of the caustic to a
 pint of water) and afterwards with warm water,
 seems also to be highly deserving of notice.
 At the end of the Professor's paper I observe
 some points of theory concerning the supposed
 action of sea water, in these cases, from its al-

* See London Medical Journal, Vol. X. page 296.

kaline contents, which may probably by some be deemed too fanciful; but this is a circumstance of no great consequence; and if you give the present remarks a place in the Medical Facts and Observations, I shall request you to add Professor Mederer's letter and other papers* on this subject, by way of note, or in any

* Cel. SIMMONS, Med. Londin. S. D. M. DE MEDERER, Professor Friburgensis.

De efficacia lixivii matricalis dilutissimi, ideo non amplius caustici, sed reagentis remedii contra hydrophobiam prophylactici persuasus nuper in litteris ad te datis rogavi, qui, si quis a bestia rabida demorsus se curandum sisteret, illum methodo in syntagmate de rabie canina a me descripta tractare velis ut sic & usu confirmaretur, quod ratione demonstratum est; nam cum id rogarem, propriis experimentis certis, quibus theoriam meam comprobarem, adhuc destitutus fui. Verum non diu post accidit, ut duæ a felle rabida demorsæ ancillæ, & nuper denuo, ut tres a cane rabido admorsæ personæ præfata mea methodo curarentur, & omnes feliciter conservarentur; quorum factorum speciem simulque læsionis & sanationis historiam ex testimoniis authenticis in hunc finem annexis colligere licet.

Cum verba tantum moveant, exempla vero trahant, jam nunc futurum existimo, ut Philiatorum nemo amplius dubitet, data quavis occasione pharmacum non causticum (nam lapidis caustici grana triginta in aquæ libra una soluta non amplius adurant) nihilominus tamen contra hydrophobiam prophylacticum adhibere, cujus efficacia non solum a priori,

any other form you please, as I am persuaded there are many readers who, like myself, will 'be glad to have a copy of them.

That

scilicet ratione & analogia demonstrata, sed & a posteriori ipsa nempe experientia confirmata fuit. Quod ut omnes ac singuli quacunque artis saluberrimæ praxi occupati faciant, valde exopto, quo multiplicato demum experimentorum numero omne dubium evanescere, atque sic tandem fieri possit, ut non solum calamitas hæc a miseris repellatur, sed & ceteri ea molestia liberentur, quam aliena miseria affert. Nullus præterea dubito, quemquam fore, qui æque opportunam quam certam hanc curandi methodum non omni alii magis profecto ambiguae & incommodæ præferat. Nullum enim aliud remedium prophylacticum certius hucusque inventum esse, ex eo facile arguitur, quod non ita pridem adhuc a bestiis rabidis admorsu rabie implicarentur, & ea oppressi, licet a peritissimis in arte viris & juxta normas novissime præscriptas curarentur, nihilominus tamen infeliciissime perierint plurimi; mea vero methodo tractati conservati fuerint omnes.

Cum teste Celso & omnibus, qui miseros sitire & rabire viderunt, hydrophobia cum rabie non solum miserrimum morborum genus, sed etiam eo oppressi in maximo discrimine sint, ab hac calamitate & periculo homines conservando hominibus maximum & distinctissimum officium præstari, & ideo neminem, qui officium hoc præstitit, maxima voluptate non affici necesse est, quare omnes, quibus fortuna, aliquem hac mea methodo ab ista calamitate conservare contigit, ut mihi eam significare, & sic voluptatem suam ob hominem conservatum communicare non graventur, etiam atque etiam rogo. Vale.

Dabam Friburgi Brisgoviae die 1ma Sept. 1789.

Copia

That persons sometimes escape the effects of the bite of rabid animals, without any prophylactic

Copia Attestati supremæ præfecturæ Serenissimi S. R. I. Principis a Fürstenberg in valle Kinzingana.

In ditione Serenissimi Principis a Fürstenberg & quidem in supremæ præfecturæ vallis Kinzinganæ dynastia Wolfach dicta, rusticus Andreas Ehle, subditus in Rankach 13tia Septembris hujus anni denunciavit, duas prædii sui ancillas Agatham Müllerin unam, & Mariam Annam Borhoin alteram a fele rabiosa demorsas fuisse.

Mandabatur illico provinciæ physico & chirurgo, ut necessaria interim remedia adhiberent, sed & eodem tempore ad D. Professore Mederer Friburgum tabellarius missus est, qui eundem rogaret, ut suum contra hydrophobiam laudatum remedium mittere, modumque applicandi edicere, vel si non gravaretur, ipse venire vellet.

Venit ipse ea, qua ob longam distantiam licuit, celeritate; ancillas morfu offensas comitante Domino Consiliario intimo & supremo Præfecto, pone insequentibus D. dynastiæ Consiliario, D. Physico & Chirurgo invisit, vulnera inspexit, suo remedio lavit, deligavit, addito simul mandato, ut hæc curandi methodus iterato repetatur, nullum præter hoc aliud remedium applicetur, postea vero vulnera consuetis sanandi regulis curentur.

Per longius deinde tempus hanc ob causam hic loci commemoratus prædictus D. Professor de læsarum ancillarum circumstantiis a loci chirurgo indies edoctus, easdemque cum ante abitum adhuc visitaret, sanatas fere reliquit, domumque suam repetit.

lactic means being employed, is certain, and must be accounted for from some particular state

Nos nunc ex integro sanatas curatasque esse cernimus, quod unice sanandi methodo prædicti D. Professoris in acceptis referendum esse putamus.

In cujus rei testimonium patentes hæc litteras majori supremæ Præfecturæ nostræ sigillo munitas dedimus.

Wolfachi die 8va Decembris 1783.

(L. S.) Cancellaria supremæ Præfecturæ Serenissimi Principis a Fürstenberg in valle Kinzingana.

Copia Attestati D. provincie Physici D. Wegbecher.

Infra scriptus a supremo huius Præfecto die 13tia Septembris h. a. mandatum accepi, ut me cum chirurgo Rankachium dynastie Wolfacenſis vallem conferrem, ibidemque duarum a fele rabida demorſarum ancillarum curam gererem. Verum cum mihi notum eſſet, D. Mederer Profceſſorem Friburgenſem certum contra rabiem habere remedium prophylacticum, rogabam ampliffimam Præfecturam ſupremam, ut præfato D. Profceſſori caſum hunc nuntiaret, ſimulque ab eo requireret, ut vel ipſe venire, vel remedium ſuum cum inſtructione, quomodo applicari debeat, mittere velit.

Adveniens in Rankach intellexi, ſelem, quæ ambas ancillaſ momorderat, tribus diebus abſentem fuiſſe, nempe non, ut hucusque ſolebat, mane & vespere, dum vacæ mulgebantur, ad ſtabulum veniſſe, ubi ab ancillis prædictis ſemper lacte paſcebatur. Quarta autem die mane iterum ante domum comparuiſſe, & in ibi conſiſtentes ancillaſ iruiſſe, unius pedem

state of the habit at the time. We daily see instances where inoculation fails, though the
infection

dem lædens; inde verberibus deterrita alteram petiit, pedem primo, ab hoc vi depulsa ejusdem ancillæ manum mordens; tandem in terram depressam felem a rustico ad ancillarum clamorem advolante furca interfectam fuisse.

His in adventu meo auditis jussi, ut felis necata aperiretur, apertamque inspiciens inveni, linguam aridam, tumidam & usquequaque nigram, œsophagum vero & asperam arteriam cum maxima parte pulmonum inflammatum.

Ex his & ex factis præmissis judicabam, felem revera rabiosam fuisse, ideoque morsuum vulnera dilatari, muria lavari & unguento digestivo obligari jussi, quod & illico factum fuit.

Quamprimum D. Professor Mederer advenit, ego & ipse cum supremo Præfecto D. Schwab, cum præfecturæ Consiliario D. Battie & Chirurgo D. Schroff invisebamus admorfus, quæ de fato suo sollicitæ & tristes, clavi S. Huberti in vola manus adustæ, a D. Professore bono animo esse jubebantur, auxilium ipsis infallibile promittendo.—Fidebant miseræ promissis eo certius quod anno vix dum præterito undecim personas morfu rabiosi canis læsas ab eodem D. Professore sanatas fuisse attestabamur.

Aperiebantur earum vulnera obligata, lixivio, quod ex granis triginta lapidis caustici chirurgorum & libra una aquæ communis paratum fuit, diligenter eluebantur, & carpto mox dicto lixivie madefacto denuo obligabantur, quæ operatio ut una alterave vice repeteretur, jussit, aliud quodvis remedium

infection of the variolous matter is carefully done, and other patients inoculated at the same time,

applicari prohibuit, vulnera vero methodo vulgari curanda præcepit, quod accurate factum fuit.

Vigesima tertia Septembris denuo invisebamus ego, D. Professor Mederer, D. Dr. Metzler Comitibus Bissing Medicus & Consiliarius, D. Consiliarius Battie & D. Chirurgus Schroff demorfas, & illas fortis suæ certiores solatii plenas invenimus. —Vulnera erant moderate inflammata, optimam suppurationis speciem prodentia; in manu vero ancillæ alterius detegebamus, morsum, quem prius tantum superficiale credcbamus, per cutem penetrasse; dilatari itaque & hoc vulnus — prædicto lixivio elui, & eo, quo prius modo obligari præceptum est.

Nunc post septimanas circiter quinque vulnera omnia sine ullo malo symptomate sanata, & ancillæ sanæ & alacres esseprehenduntur, quod methodo rationali D. Professoris attribuo. In eajus testimonium hæc litteras proprio sigillo munitas scripsi.

Wolfachi 6ta Decembris 1783.

(L. S.)

WEGRECHER Medicinæ Doctor, Serenissimi Principis a Fürstenberg Consiliarius, & dynastiarum Wolfach & Haslach Physicus.

Præpositum attestatum propria manu serenissimi Principis a Fürstenberg Consiliarii — Med. Doctoris & supremæ præsectoræ in valle Kinzingana Physici ordinarii, D. Jacobi Wegbecher

time, with the same matter, and the same lancet, have the disorder. May not the same thing happen

becher hic Wolfachi scriptum fuisse appresso cancellariæ minori sigillo attestatur

Wolfachi 8va Decembris 1783.

Cancellaria supremæ præfecturæ Serenissimi Principis a Fürstenberg in valle Kinzingana.
(L. S.)

Copia Attestati Chirurgi jurati D. Schroff.

Infra scriptus per supremam præfecturam cum D. Physico D. Wegbecher ad duas illas a sele rabiosa in Rankach demorsas ancillas missus fui, quas læsas inveni, ut sequitur.

Agatha Müllerin 18 annorum, in crure dextro, parte mediâ anteriori duplicem excoriationem, parte exteriori vero & superiori morsum duplicem per cutem profunde in carnem furæ penetrantem passa est.

Maria Anna Borhoin 22 annorum in parte posteriori & mediâ furæ sinistræ morsum unum duplicem per cutem profunde in carnem penetrantem — in parte exteriori brachii sinistri proxima ad carpum morsum alium duplicem per cutem profunde penetrantem accepit; præterea in carpo ipso morsus, qui primum excoriatio tantum videbatur, post suppurationem vero profunde sub cute penetrasse inventus est.

Singula cutem penetrantia vulnera a me dilatabantur, morsus duplices penitus conscindebantur — prima vice tantum secundum ordinationem D. Doctoris Wegbecher, postea vero semper secundum methodum D. Professoris Mederer curabantur, cui soli adscribo, quod demorsæ septimana quinta, sine

happen in the bite of a mad dog? — I remember a case of a child at the breast being for a fortnight

ullo malo symptomate sanatæ fuerint, & adhuc omnimode sanæ & alacres sint.

Quod propria manu sigilloque attestor *Wolfachi* 6ta Decembris 1783.

CONRADUS SCHROFF, chirurgus juratus.

(L. S.)

Præpositum Attestatum propria manu huius chirurgi jurati
Conradi Schroff scriptum esse, appresso minori sigillo testatur
Wolfachi 8va Decembris 1783.

Cancellaria supremæ præfecturæ Serenissimi Principis a Fürstenberg in
valle Kinzingana.

(L. S.)

Nos ad supremam præfecturam vallis Kinzinganæ constituti
Serrenissimi Principis a Fürstenberg Consiliarius intimus & Præfectus supremus nec non Consilarii & officiales attestamus
præsentibus, duas illas ancillas in rustici Andreae Ehle Domu
in valle Rankach præfecturæ Oberwolfach decima tertia Septembris 1783, a fele rabida demorsas, scilicet Annam Mariam Borhoin ex præfectura Oberwolfach & Agatham Müllerin ex valle imperiali Hammerspach methodo a Friburgensi
D. Doctore & Professore Mederer proposita feliciter sanatas,
hucusque semper sanas & alacres fuisse, & adhuc optime valere.

Wolfachi die 20 Decembris 1784.

(L. S.)

Copia

fortnight or more in a room where four or five children had the small pox; and some of them the

*Copia Attestati D. D. Consiliar. aulic. & Medic. D. Pösch
& Chirurgi Panck.*

David Mayer murarius triginta triura annorum, Bubsthemii in cæs reg. A. A. dynastia Hohenberg natus, 24ta Julii anni currentis in via Hüfinga Donefchingam ducente a cane rabido per togam ex cannabe textam & indusium in cubitum dextrum ita ad morsus fuit, ut vulnus rotundum quadrantem pollicis latum & profundum in musculum extensorem brevem cubiti prope flexuram sursum versus penetraret.

Franciscus Xaverius Hefler undecim annorum & trium mensum filius civis Donefchingensis ab eodem cane, a quo David Mayer vulneratus fuit, admordebatur in pede dextro duos pollices supra condilum externum. Hoc morsu duo infligebantur vulnere, primum æque rotundum quadrantem pollicis latum, medium vero profundum intrabat supra condilum externum inter musculum peroneum anteriorem & posteriorem, os tamen perostio suo adhuc tectum fuit. Secundum vero duos pollices a priori distans super tibiam in tibiæ antico ejusdem latitudinis, non vero tantæ profunditatis erat.

Ab hoc puero canis rabidus infligebat in puellam 9½ annorum, hujatis militis filiam, Franciscam Roesch, & prosternebat illam retrorsum in terram. Canis hanc puellam admordebatur in brachio dextro ad articulum brachii anterioris cum superiore, duoque vulnere infligebatur, unum super cubitum in musculum extensorem brevem, alterum sub cubito introrsum in musculum cubitæum internum, utrumque quadrantem pollicis latum & profundum. Simul in ejusdem brachii media

&c

the confluent fort, without catching the disease, though, in general, it is so easily contracted.

When

& interna parte, ubi caro musculi radiæ interni in partem suam tendinosam definit, per cutem nudam sauciabatur vulnere fabæ italicæ magnitudine, & $\frac{1}{4}$ pollicis profunditate. Præterea eidem puellæ idem canis rabiosus morfu inferebat vulnus in labium oris superius versus sinistram lentis vulgaris magnitudine.

Post hæc facta nos, ut in rei veritatem accuratissime inquireremus, & miseris auxilium efficacissimum afferemus, illico appellati fuimus.

Inveniebamus tunc has tres ad morsas personas sine ullo adverso symptomate.—Vulnera igitur illico dilatabantur, & postquam sanguis ad sufficientem quantitatem effluxisset, illa lixivio, quod ex lapide caustico gr. XXX & sufficienti aquæ quantitate libr. I. paratum fuit, suadente D. Matthæo de Mederer, &c. &c. eluebantur, nec non carpto eodem lixivio madefacto dcligabantur, & secundum artis principia curabantur. Vulnera hoc lixivio per Mensem in suppuratione conservabamus, & toto hoc curationis tempore nullum adversum symptoma observabamus.

Elapso mense vulnera jam penitus erant sanata, & hæ tres personæ hucusque adhuc optime valent. Quamobrem hujus beneficii nunquam non memores Domino Inventori præstantissimi hujus remèdii ob ejus divulgationem gratias referimus debitas, & hisce facta hæc palam contestamur,

Attestatum præpositum ab huiate Serenissimi Principis Consiliario aulico & medico D. Posch & ab huiate Serenissimi Principis Chirurgo de Panck manu propria subscriptum &

Consueto

When the means of prevention have been neglected, or have failed, and hydrophobia has
actually

Consueto illorum sigillo munitum, similibus vero ab his exhibitis Attestatis omnimode credendum esse, sub sigillo majori Cancellariæ Regiminis Serenissimi Principis a Fürstenberg & ejusdem Secretarii Nomine manu propria subscripto hisce in optima forma affirmatur.

Doneſchingæ 23 Decembris 1784.

Serenissimi Principis a Fürstenberg
Regimen hujas.
FREY Consil. & Secretar.

Copia Attestati Regiminis Serenissimi Principis a Fürstenberg.

Nos ad Regimen Serenissimi Principis a Fürstenberg constituti Præses, Cancellarius, Consilarii intimi & aulici attestamus hisce—die 23tia Julii anni currentis nobis durante sessione a politiæ ministris annunciatum fuisse, quod canis rabidus in oppidum irruisset, & homines & pecora læsisset, nec non quod jam dispositio necessaria facta esset partim, ut homines læsi convenienter curarentur, partim ut canis rabidus deprehenderetur & interficeretur, nec non ut pecora læsa majoris securitatis causa illico necarentur, & terra absconderentur.

Ex continuo facta investigatione sequentia inventa fuerunt: Canis prædictus erat alienus, hic loci ignotus, fuscus, villosus, venaticus, armilla coreacea aurichalco præfixa cinctus; veniebat super viam publicam Hufflinga ad oppidum nostrum hora media undecima ante meridiem. Adhuc in distantia 200 passuum ante oppidum insperato & non irritatus irruebat in super viam mox dictam ambulantem Davidem Mayer mura-
rium

actually taken place, what are the most proper remedies to be adopted? The antispasmodic
and

rium ex Bubsheim atque inferebat ipsi vulnus in cubitum dextrum. Ab hoc secum portato tigni frusto repulsus canis prædictus capite semper demisso, lingua exserta, ore spumante, & cauda retracta directe se in oppidum nostrum conferebat, & statim ad primam domum canem ad eam in platea ambulantiem opprimebat. In oppidum ingressus lacerabat gallinam ipsi obviam, & intrabat in domum apertam & ejus conclave inferius, in quo bona fortuna neminem inveniebat. Ex hac se in partem anteriorem hujus loci recipiebat, & adgredebatur Franciscum Heffer, puerum undecim annorum sub foribus paternæ domus nudis pedibus stantem, & in ejus pedem sinistram dentes adeo defigebat, ut affixus pedi a puero ultra tres passus in domum retraheretur, ubi a patre & fratre majore advolantibus fustibus dejiciebatur.

Vix vero 50 passus abhinc invadebat a tergo Franciscam Roeschin, puellam novem annorum in platea existentem, prosternebatque eam in terram, & morsu sauciabat brachium ejus dextrum, & labium oris superius.

Tunc præcise subulcus gregni suam domum cogebat. Prædictus canis rabidus iterato in eam penetrabat, & tres porcos vulnerabat. Postea ex loco supra viam Schweningam ducentem pedes efferebat; ante ultimam domum vero adhuc canem & felem per plateam incedentem aggrediebatur & vulnerabat. Tandem extra oppidum circiter 150 passus procumbebat ad viam publicam in fossa sicca & cespite obducta, ubi a Principis chirurgo D. de Panck glande in maxillam inferiorem ictus fuit.

Hoc

and nervous medicines, which are so generally had recourse to in these cases, have so often failed

Hoc ictu vulneratus canis alia via se denuo in oppidum recipiebat, & statim primo ingressu allata agressus, gallum & gallinam fauciabat.—Ultro in locum irrupturus, a venatore Carolo Goenner secundum glandis ictum in ventrem accipiebat, accepto se in stabulum ex adverso apertum, & per hoc in domum ipsam recipiebat, ubi reclusus a Cels. Regiminis scriba Scheidegg primo punctibus vulnerabatur, & tandem glandis ictu trajiciebatur. Canis hic nunquam, nec verberatus, nec punctus aut ictus vocem edidit.

De personis vero fauciatis referebat Consiliarius aulicus & principis medicus ordinarius D. Posch, nec non principis chirurgus D. de Panck, quorum curæ traditæ fueræ, quod prædictæ personæ methodo D. Professoris Friburgensis de Mederer tam fortunato successu tractatæ fuerint, ut non solum tempore curæ semper alacres, sed etiam quatuor post septimanas jam penitus sanatæ, & hac cura ab omni periculo rabiei immunes redditæ fuerint.

Sicut & hæ personæ post decursum 5 mensium adhuc optime valent.

Ad tuendam veritatem & majorem confirmationem prædictorum hoc Attestatum majori nobis commissio Regiminis Insigni corroborari, & consueto more per Secretarium nostrum subscribi iussimus. Quod factum est *Doneschingæ* die 23 Decembris 1784.

(L. S.)

Serenissimi Principis a Fürstenberg
Regimen hujas.

FREY Consil. & Secretar.

Methodus

failed of success, that I have long determined, in my own mind, should any instance of this
dreadful

Methodus facillima & certissima Homines & Animalia cuncta a Bestiis rabiosis admorsa conservandi, ne quoque in rabiem deveniant.

§. 1. In curatione hominis a bestia rabida (cane aut felle) demorsi id imprimis agendum est, ut virus vulneri immissum destruat, priusquam absorptum atque universæ humorum massæ commixtum fuerit. Hoc virus per septimanas, menses loco, cui adplicatum fuit, iners bona fortuna hæret.

§. 2. Quo fine excissio aut inussio vulneris probatissimum est & princeps remedium a Celso jam recommendatum; quomodo hæc illave institui debeat, cuilibet Chirurgum notum erit.

§. 3. Verum, cum hæc medendi methodus, quia crudelis adparet, sæpe repudietur, impossibilis sæpe sit, his in casibus secuturæ rabiei periculum persistit, nisi alia isthæc ratione avertatur.

§. 4. Cum experientia certo constat, ex remediis omnibus hæctenus eo scopo laudatis nullum infallibile fuisse, aliorum auxiliorum tentamen nemini absonum videbitur, præsertim si eorum efficacia prævideri possit, & observationibus jam comperta fides sit. Quale remedium esse videtur illud a Professore Friburgensi de Mederer nuper publici juris factum; lixivium nempe matricale ita dilutum, ut non amplius adurat. Methodus illud adhibendi sequens est.

§. 5. Quodlibet vulnus ab animali rabido aut de rabie tantum suspecto admorsum omnium primo, si angustum & profundum simul fuerit, lege artis dilatetur, tum lixivio supra-
dicto.

dreadful disorder fall under my care, to change the method of treatment, and try the effects of tonics.

The

dicto (§. 4) eluatur, (ex granis triginta lapidis caustici Chirurgorum & libra una aquæ ex tempore parato,) si locus non nimis sensibilis illud permittat, carptis eodem ebriis deligetur, si vero locus admodum sensibilis esset, lixivio mox dicto probe abstergatur, dein aqua communi tepida rursus eluatur, ac denique ligaminibus siccis obligetur.

§. 6. Deterfio lixivii ope aliquoties per diem iteretur, tam diu, quam per inflammationem licuerit.

§. 7. Si vulnere jam inflammato vocaretur Chirurgus, expectanda ei suppuratio est, atque tum methodo supra descripta (§. 5) ulcus tractandum.

§. 8. Si serius adhuc, vulnere nimirum pro parte, aut integrum jam sanato accerseretur, illud lapide caustico denuo exulcerare, atque ulcus post deciduam Escaram lixivio sæpius memorato eluere & deligare debet. Non perinde est hic, lapis causticus aliudve causticum recipiatur, ille enim partes animales & cum his virus rabiosum multo certius destruit, quam quodcumque aliud causticum ex vitriolorum profapia.

§. 9. Vulnere quæcumque ex dictis (§. 3 vel 5) methodis tractata cæterum juxta generales artis leges sanantur.

§. 10. Cum hac ratione virus rabiosum admorso in loco delcatur, atque ideo nil de eo resorberi possit, omnia remedia interna, externaque ad veneni resorptionem impediendam, illudve jam resorptum destruendum hætenus laudata plane superflua sunt.

The plan I have proposed to myself would be, (after such previous evacuation as might seem

§. 11. Omnes (§. 3 vel 5) dictis methodis tractati rabie corripī omnino nequeunt. Quod si vero omissionis causa accideret, in horum infortunatorum hominum cura nullum philanthropiæ officium prætermittatur, hoc eo magis fieri potest, cum conviſi modo ſimus, ejuſmodi infortunatos homines non mordere, & ſalivam ſine morſu non iſficere.

§. 12. Verum non quilibet admorſus, qui ex angore, ne rabidis moriatur, moeſtus eſt & meticuloſus, eadem ex cauſa varii generis ſymptomatibus, hydrophobiæ analogis urgetur, pro rabido ſtatim declarandus eſt. Inde accidit, quod tam diverſis ſæpe ſibi contrariis remediis adeo multi a rabie ſanati legantur. Anxiis hiſ ſolacium præbeatur, & ſi dicta (§. 5 = 8) methodo nondum tractati ſunt, eadem tractentur.

§. 13. Vera rabies communiter inter tres ſeptimanas totidemque menſes erumpit; quod de multo citiore vel multo tardiore ejus eruptione ſcriptum habetur, id incertum eſt.

§. 14. A prægreſſo vehementi corporis, animive motu ut plurimum excitatur, vulnus adhuc apertum vel jam clauſum de novo dolere incipit, dolores centrum corporis gradatim petunt, plerique alternum frigus adortur cum laſſitudine, febris ſymptomatibus conſuetis plus minusve ſtipata, hiſ ſe adſociat deglutiendi impotentia (unde perpetua illa ſputatio) ac inſuperabilis denique horror non ab omni ſolum liquido, verum & eo omni, quod illius ideam excitare valet.

§. 15. Utrumque hoc ſymptoma *Diſphagia & Hydrophobia* eſſentiales rabiei characteres conſtituunt, ejus præſentiam illa unice definiunt.

§. 16.

seem necessary) to direct my patient to be kept as much from the light as possible; the bark, in substance, to be given in large quantities, and Port wine plentifully; but that every thing liquid should be given from a dark-coloured, unglazed tea pot, that nothing might appear to the patient; that bark clysters, with opium, should be frequently thrown up; oil of amber

§. 16. Miserrimum hoc morborum genus arti medicæ indomabile adhuc est, & cum in mox dictis (§. 15) symptomatibus principaliter illud consistat, interna medicamenta incassum hæc quærit. Externa quærenda sunt remedia, inunctio mercurialis hætenus laudata in rabie jam præsentē manifesto nociva fuit*; balneum ex aqua marina semper profuisse legitur†; profuisse potest, quia ex aqua balneo adhibita resorberi quid & lymphæ, proprio virus rabiosi vehiculo admisceri potest.

§. 17. Si balneum maris hoc in casu semel juxit, id alcali ex aqua marina resorpto certe debetur; an lixivium dilutum huic fini non imprimis utile foret? In virus scrophulosum potenter agit, veneno rabioso plus quam venereum adline, quocum posteriore Sauvageus tantam veneni rabidi analogiam reperiit.

§. 18. Hinc actu rabidi hydrophobia non obstante in balneum lixiviosum provide demittendi, atque in eo tamdiu detinendi essent, quam fieri potest; *nam in desperatis anceps remedium experiri melius esse, quam nullum*, Celsus jam professus est.

* Moreau.

† Tulpius.

rubbed on the vertebræ of the neck and back, and vesicatories, as stimulants, applied to the throat; and that, as soon as possible, the cold bath, or, what may be more easily used, the shower bath, should be had recourse to.

I have said nothing of the use of mercury, which has been so often recommended, and found inefficacious in these melancholy cases, because the action of it, if there be time for it to enter the circulation, seems likely to counteract the bark and the other tonic remedies I should wish to employ.

I have been confirmed in my opinion of the propriety of at least making trial of the mode of treatment I have ventured to suggest, by reading some observations on the cause and cure of the tetanus, lately published by Dr. Rush, of Philadelphia*, in which he gives an account of the success of the bark and wine, taken in large quantities, in that disease. To these, in one case, he added a blister between the shoulders, and, in another, the oil of amber in large doses, when he suspected the bark and wine began to lose their effect.

* See the London Medical Journal, Vol. VII. page 424.

After assigning his reasons for throwing aside opium and nervous medicines, he proceeds to observe, that, having had no opportunity of seeing the hydrophobia since he had adopted these principles, he is unable to determine how far his reasoning with respect to tetanus may be applicable to the hydrophobia; but from the spasmodic nature of the latter disorder, from the season of the year in which it generally occurs, and, above all, from a case related by the late Dr. Fothergill, of a young woman having escaped the effects of a mad cat by means of the wound being kept open, (and which, from its severity, Dr. Rush thinks was probably connected with some degree of inflammation) he asks whether it is not probable that the same remedies, which have been employed with success in the tetanus, may be used with advantage in the hydrophobia?

At the conclusion of his paper he very properly remarks, (and the observation may serve as an excuse for the hints which I myself have ventured to throw out on the subject) that in a disease so deplorable; and hitherto so unsuccessfully treated, even a conjecture may lead to useful experiments and inquiries.

Although the cause of tetanus, and of hydrophobia, may have a different origin, yet the effect in both seems, in some manner, to agree, a spasmodic affection of the muscles, and particularly of those belonging to deglutition, being brought on. I am willing to allow that the nervous system is likewise affected, as the disease is always increased upon even the approach of liquids, without attempting to drink, or by any thing of a shining nature.

Before I conclude this letter I shall take the liberty of offering a few more remarks relative to this subject, which have been suggested by a perusal of Dr. Percival's hints towards investigating the nature, causes, &c. of the rabies canina, addressed to Dr. Haygarth, and inserted in the tenth volume of the London Medical Journal. The learned author says he does not perceive any strict analogy between the action of the canine virus and that of lues venerea, small pox, or of the viper; as these evidently affect the lymphatic system, and their progress into the course of circulation may be readily traced, which is not the case with the bite of a mad dog.—“Are we then,” he asks, “fundamentally right in the idea, that the bite of a rabid animal operates by absorption? and
“ might

“ might not its effects be, at least as well, if not
 “ better, explained, by ascribing them to local
 “ nervous irritation, propagated at different pe-
 “ riods of time, according to the varying cir-
 “ cumstances of sensibility and irritability to
 “ the brain, and from thence to the fauces,
 “ gullet, and stomach ?”—This doctrine is in-
 genious, but not so clear, I apprehend, as that
 of absorption. It is true there is a great diffe-
 rence between the virus of rabid animals and of
 those disorders which the Doctor mentions, but
 yet the affection may be easily accounted for by
 absorption, if we allow that a greater length of
 time is required for the action of the one than
 is necessary for the other. We know that in
 the small pox and lues venerea the infection is
 found to have taken place in a few days, and in
 some cases in a few hours; in the more active
 contagion of disorders, from putrid affection
 by insertion, in a very short time indeed.
 About thirty years since I accidentally wounded
 my finger with the point of my knife in open-
 ing a woman who died of a dropsy of the ova-
 rium, where the contained fluid was very pu-
 trid. In a very short time I felt a slight unea-
 siness or irritation in the part, and in the course
 of the night it might be traced to the glands

above the elbow, and from thence to the axilla, where a collection of matter formed, which I am inclined to think saved my life; and the morning following the accident a ripe pustule was observed on the punctured part.

The virus of rabid animals will certainly lie dormant for weeks, till some change takes place in the habit, when it becomes active. — Dr. Hamilton, in his remarks on this subject, (pages 99 and 108) says, that the time required for the virus to become active is rather uncertain; but he thinks from four weeks to three months are by much the most frequent, and that the first symptom is generally a pain in the part where the bite has been received, stretching in the course of the lymphatics towards the heart, or where they unite with the sanguiferous system.

Mr. Jesse Foot* thinks that “ forty days is
“ about the general average from the bite to
“ the time of the coming on of hydrophobic
“ symptoms;” though there are cases on record where the morbid affection has not shewn itself for some months, even to the eleventh, and,

* Essay on the Bite of Mad Dog.

as in the case related by Mr. Nourse †, to the nineteenth. Still, however, in general, the appearances take place in the bitten part first, and from thence are conveyed by the lymphatics, or some other series of vessels, to the circulation. It is uncertain what stimulates the virus to action, but the effect seems to me to be the same as that caused by inoculation, &c.; a local irritation is brought on, and thence communicated to the habit.

Dr. Percival, in the paper already referred to, says, “ the accession of canine madness is
 “ uncertain as to the distance of time from the
 “ bite, and the symptoms by which it first
 “ manifests itself: but frequently the cicatrix
 “ becomes hard and elevated; pains shoot from
 “ it towards the head; it is surrounded with
 “ livid or red streaks, and the wound breaks
 “ out afresh.” This is coming very near the action of the venereal disease or small pox, though the time is so uncertain. It is particu-

† Philosophical Transactions, Vol. XL. page 5. See also a case of hydrophobia related by Mr. Dundas in the London Medical Journal, Vol. VIII. page 156, where eighteen months intervened between the bite and the accession of hydrophobia.

larly happy for mankind that the virus of rabid animals requires so much time to vegetate, (if I may be allowed the expression) as it admits of preventives to be made use of, and none, as I have already remarked, seems so likely to succeed as excision.

Canterbury,
January 24, 1791.

III. *An Account of an uncommon Inflammation of the Epiglottis.* By Mr. Thomas Mainwaring, Apothecary in London. Communicated in a Letter to Everard Home, Esq. F. R. S., and by him to Dr. Simmons.

A Gentleman, about forty years of age, who had been exposed to the influence of cold, on the 17th of December, 1790, was attacked, in the night, with a violent pain in his throat, and a total inability to swallow.

In the morning of the 18th the symptoms were a good deal increased. The pain was not in the situation usual in similar affections, but lower down, and felt more anteriorly. When he attempted to swallow fluids, they passed readily

dily to the root of the tongue, where they were not allowed to remain for a moment, but were immediately forced out of the mouth with considerable violence.

Upon examining the throat, the tonsils were in a natural state, as well as the palatum molle and uvula, having no tumefaction, nor were they even materially redder than common, so that in this view of the parts there was no appearance of disease; but upon pulling the tongue forwards, and looking down into the throat, the epiglottis was immediately brought into view, in a very unnatural state, and with a very extraordinary appearance: it was much swelled, extremely red, and looked by no means unlike the glans penis when distended with blood in its erected state. It stood directly up, so that nothing could pass over it, and there was very little room laterally between it and the sides of the pharynx. All the other parts were apparently free from disease.

A blister was applied externally to the throat; leeches were also made use of; but there did not appear to be any abatement from either of these modes of treatment: the complaint continued, with little or no diminution, till the

20th,

20th, when the swelling, or, more properly, the sensibility of the epiglottis, was so far gone off as to allow the patient to swallow small quantities of fluids, and by the 23d he could, with some pain and a little difficulty, take solid food.

As it is intended by the narration of this case principally to point out the uncommon circumstance of an affection of the epiglottis, and that entirely independent of the other parts, the mode of treatment, particularly as it did not appear very efficacious, has been, in a great measure, passed over.

Strand,

February 9th, 1795.

IV. *Cases of the Extraction of the Cataract; with practical Remarks.* By Mr. Richard Sparrow, one of the Surgeons to the Charitable Infirmary, Dublin; and Member of the Royal College of Surgeons in Ireland. Communicated in a Letter to William Lister, M. D. Physician to Saint Thomas's Hospital in London, and by him to Dr. Simmons.

C A S E I.

IN the month of October, 1788, I was consulted by the Rev. Mr. Johnson, Curate of Longford, for a complaint in his eyes, which he informed me had, for upwards of three years, impaired his sight so much as to disqualify him for performing divine service.

The account he gave me of his disease was, that, in the summer of 1785, after working in his garden till he was rather warm, he took off his wig, and laid a wet napkin on his head, (which it seems was a frequent custom of his); that some short time after he was attacked with severe pain in his head, which in four days was succeeded by so great a dimness of his sight, that he could not distinguish a letter in a book.

Having

Having applied to some country practitioners, whose prescriptions afforded him no relief, he came to Dublin, and there, at different times, put himself under the care of a physician and an oculist, both of whom mistaking his case for an affection of the optic nerve tending to gutta serena, put him under various courses of medicine, ordered him sometimes warm, sometimes cold bathing, large and frequent topical bleedings, blisters, setons, &c., which had no other effect than that of impairing his general health.

It was not for a year and a half after the first attack that the real nature of his complaint was discovered by two physicians of eminence in this city : they told him he had cataracts, and judiciously advised him to lay aside all farther use of medicine ; but, from his advanced age, were, I believe, little inclined to recommend a surgical operation. Tired, at length, with his distressed situation, he determined on seeking relief at the only source from which it could possibly be obtained — the hand of the surgeon, and with this intention he called upon me.

I examined his eyes, and perceived a cataract in each ; that in the right eye perfectly opaque, the left not quite so, but permitting very little
useful

useful vision. There was a remarkable relaxation of the tunica conjunctiva in both eyes, folding up near one half of the cornea, and looking like a tear in each eye. In other respects his eyes had that appearance which experience teaches us is favourable to the success of an operation, viz. the ball of the eye of the natural shape and fulness; the cornea transparent, and free from all opacity; the pupil of the natural size and shape, dilating and contracting freely; but, above all, the power of distinguishing any opaque body placed between the eye and the light, the only certain test of the sound state of the optic nerve.

His general health was now restored, nor was he subject to pain in any part of his head. My chief objection, therefore, was his advanced age, he being turned of sixty-five years. At my request a consultation was held, in which every objection to operation was laid before him; but such was his impatience to obtain a chance of restoration of sight, that he paid little attention to our objections, and declared his fixed determination to submit to an operation as soon as it could with propriety be attempted. He then went to the country, and returning in November, called again on me. The only preparation

paration I thought necessary was a gradual diminution of the use of animal food for a fortnight; and for about a week previously to the operation he was ordered to bathe his feet in warm water every night at bed time. It was his wish to have only the right eye operated on; keeping the other in reserve in case of failure of the first.

As the extraction of the cataract is an operation confessedly one of the nicest in its execution, and the most important in its effects, that the surgical art can boast of, I flatter myself that a detail of the different steps of it will not be thought tedious in a case like the present; which has been attended with the most complete success.

Method of Operating.

For the operation a chamber was chosen into which only a moderate degree of light was admitted; as a bright light irritates the eye; makes it unsteady, and forces the pupil to contract too much.

On the 20th of November, 1788, I proceeded to operate in presence of Dr. Clarke and some other medical gentlemen of this city. Having placed the patient on a low chair, with
his

his right eye obliquely to the light, and being seated opposite to him, the upper eyelid was raised by my assistant and friend; Mr. Richards, and whilst I depressed the lower one with my right hand, I with my left passed a knife, having a long and narrow point, through that part of the cornea next the external angle of the eye, within half a line of its junction with the sclerotica, and a little higher than the center of the pupil, and pushing it forwards to the opposite side, made nearly a horizontal section of full one half of the cornea. The aqueous humour immediately flowing out, the lids were closed, and the eye suffered to rest for a minute or two: the patient was then desired to open the eye, when, having introduced the instrument recommended by De Wenzel to divide the capsule, the opaque crystalline was pushed out of the eye by the contraction of its muscles, without the necessity of any external pressure whatever on the globe. After gentle friction on the cornea to collect any fragments of the cataract in the pupil; nothing appearing, and the pupil seeming perfectly clear and round, the eye was closed.

Having been in the habit of applying some sedative application to the eye after this operation,

tion, which, from the necessity of frequent renewal, I had found very inconvenient to the patient, in this case I made use of nothing more than a bit of fine soft lint, secured with a light compress and roller, and the patient was laid in bed on his back, with his head inclined to the left side. During the short time the eye was suffered to remain open, after the operation, the patient could distinguish the panes of glass in the opposite window.

Upon examination of the crystalline, it was found of the natural size ; its center of a very firm consistence, and of a dark topaz colour, while the circumference, which was of a whitish colour, was softened to the consistence of jelly.

On the day of the operation, and the two succeeding ones, he was quite free from pain or uneasiness in the eye.

On the fourth day he could distinguish, through the bandage, when the window shutters of the chamber were opened or closed.

On the fifth day, the eye became more sensible, and watered a good deal ; the lids stuck together, and gave some uneasiness : this probably arose from a severe change in the weather. He was advised to apply his saliva on the end of his finger

finger to the edges of the eyelids when they adhered; and this simple application he always found removed the adhesion, and gave him ease.

On the ninth day, the irritation having subsided, I removed the bandage, and opened the eye. Some inflammation appeared on the lower part of the conjunctiva; the wound of the cornea was perfectly united; the eye naturally full; the pupil of the natural shape, size, and clearness: he could distinguish the different objects round the chamber, and could even see the hands on my watch. The eye was closed, and covered as before. He was allowed a more generous diet.

On the eleventh day, he could tell the hour by my watch.

On the seventeenth day I removed his bandage, and pinned a bit of green silk to his night-cap. The dilatation and contraction of the pupil were now nearly natural. He was ordered to bathe the eye with cold water.

On the twenty-fourth day, with the assistance of a proper glass, he could read a newspaper, and in a week more returned to the country, his eye and vision being then in the following state:

VOL. I.

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The eye of the natural size and shape; the cicatrix of the cornea scarcely perceptible, and so close to the sclerotica as to give no impediment whatever to vision; the pupil a little smaller than natural, but its shape, dilatation, and contraction perfect. With the assistance of a convex glass he could see to read the smallest print as well as he ever did in his life. The tunica conjunctiva, which had been so much relaxed previously to the operation, had now recovered its tone, probably from the degree of inflammation necessarily attending the operation.

In the course of two years, which have now elapsed since the operation, I have had many letters from this gentleman, and have often seen him in town. His sight is as perfect, when assisted by a proper glass, as it was at the age of twenty; and since a month after the operation he has constantly gone through the whole of his duty as a curate with as much ease to himself as if his sight had never been affected.

C A S E II.

In the month of September, 1789, I was consulted by Mr. Pollen, of Carlow, for a complaint in his eyes, which deprived him of all
3
useful

useful sight. Upon examination I found he had cataracts, which had been preceded by the ordinary symptoms, gradually increasing from the first attack, two years before, to that time, when he was so blind as to be able to distinguish little more than light from darkness. The appearance of his eyes and the colour of the cataracts were favourable for operation; but he was turned of sixty years of age, was very rheumatic, and, from a habit of drinking freely after dinner since his sight became impaired, he had got a fulness and redness in his face which showed a considerable determination to the head. These circumstances, however, were by no means sufficient to forbid the operation where the appearance of the eyes was so favourable; I therefore gave it as my opinion that his chance of restoration to sight was considerable. He immediately determined on the operation.

To obviate any inflammatory tendency he was put on a strict antiphlogistic regimen for about ten days. I then extracted the opaque lens from the left eye by making an horizontal section of the inferior half of the cornea, through which the cataract instantly rushed, accompanied, as nearly as I could guess, by about half a tea-spoonful of the vitreous hu-

mour. This accident was, I believe, occasioned by a violent involuntary motion of the muscles of the eye, for my assistant, Mr. Richards, made no pressure whatever on the globe: the eye was closed, and suffered to rest, to prevent any farther flow of the vitreous humour, which, notwithstanding this precaution, took place in some degree. On opening the lids, the pupil appeared much dilated, but perfectly clear. I then closed the eye, and covering it with a bit of dry lint, a thin compress, and roller, laid the patient in bed, with his head inclined to the right side.

The cataract was the largest I had seen; it was of a dark brown colour, the edges, as usual, being lighter in colour, and softer in consistence.

Immediately after the operation, while I was taking some blood from him, he assured me that the wound of his arm gave him more pain than that of his eye.

On the day of the operation he had a sensation in the eye as if it wanted to open, a kind of vibratory feel, and, as he expressed it, frequent bright flashes of light seemed to come from his eye, so that he imagined candles were lighted in his chamber: he had also a flow of
tears,

tears, but unattended with heat or pain. Notwithstanding these sensations, he slept perfectly well, and next day found his eye quite easy. The sensation of flashes of light returned at intervals.

On the third day he complained of no uneasiness, but still perceived the flashes of light. I removed the bandage to try if any thing was amiss. The eye, through the lids, appeared nearly as full as the other, and without opening it he could readily distinguish the different degrees of light admitted into his chamber for the purpose.

On the fourth and fifth days he was ordered to apply his saliva to the eyelids when they adhered or were uneasy, which always gave him relief.

On the sixth day he was permitted to get out of bed.

On the eighth day I opened the eye. The wound of the cornea was perfectly united; the eye seemed naturally full; the pupil clear, somewhat dilated, and of an oval form obliquely from side to side, the direction, I suppose, in which the crystalline had passed through it; with considerable turgescence of the vessels of the tunica conjunctiva. He knew his wife and

friends, and could tell the colour of different objects. The eye was closed, and covered as before. Encouraged by these favourable circumstances, he, without my knowledge, indulged himself freely in the use of animal food and port wine, which, in a habit like his, kept up a degree of inflammation in the eye for some time, that made the application of a blister necessary. This soon removed all uneasiness, and his sight gradually became stronger.

On the twenty-fifth day from the operation, having got a glass which enabled him to read moderate-sized print, he returned to the country. I have had different letters from him since, and last summer I had an opportunity of examining his eye, as he came to town for some days. The pupil was a good deal dilated, still of rather an oval form, with very little power of contraction or dilatation, and that only at its superior part; but, notwithstanding this circumstance, his sight was so perfect, when assisted by a proper glass, as to enable him to read, write, and do all his usual business.

CASE

C A S E III.

In the month of October, 1789, James Kelly, a poor man, by trade a hatter, requested my assistance for a complaint in his eyes, which rendered him incapable of earning his bread. He attributed his blindness to the influenza, having been severely attacked with that epidemic in the summer of 1788; immediately after which he found his sight gradually diminishing till about a month before he applied to me, when he became unable to distinguish objects. The symptoms were the ordinary ones of cataract, and on examination I perceived one in each eye; the left completely opaque, and of a white colour, the other not quite so, he being able to see bright colours with it.

From the whiteness of the left cataract I apprehended it was of a milky nature, being, I supposed, dissolved in the capsule; and from some irregularity in the colour, at different points of it, I judged the capsule to be opaque. From this latter circumstance, notwithstanding the favourable appearance of the eye in other respects, I had many doubts of the success of an operation; but he entreated me to give him

even the chance that remained, as he could not be worse than in his present situation.

After the usual preparation, I proceeded to extract the left cataract, and having passed the knife through one side of the cornea, and approached the other, the eye turned towards the internal angle. This obliged me to pierce the opposite side as quickly as possible, which immediately gave me such command, that I turned the eye to the position I wished, and finished the section of the cornea. The aqueous humour flowed out, and from the extreme irritability of the eye the pupil instantly contracted to the size of a large pin's head, enclosing the cataract. I turned his back to the light, and, closing the eyelids, suffered him to rest for some minutes, but the pupil was so clearly contracted, that I had much difficulty in introducing the instrument recommended by De Wenzel to divide the capsule of the crystalline. After waiting, however, some minutes longer, the irritation subsided in some measure, and I effected it; the pupil became a little more dilated, and, by cautious pressure, I extracted a large portion of the crystalline in a broken and partly dissolved state; the remainder of it came away partly by pressure.

pressure and partly by the assistance of a small hook.

I now was convinced of what I had before a suspicion, that the capsule was partly opaque; but it seemed confined to a small portion of it, at the external part, which left full four-fifths of the pupil perfectly clear. From this circumstance, and the unavoidable loss of some of the vitreous humour during the operation, I thought it most prudent not to attempt to extract the opaque capsule from an eye so extremely irritable; I therefore closed it, and having bled the patient freely from the arm, laid him in bed in the proper position, viz. on the opposite side to the eye operated on. This is a very necessary precaution, as it tends to prevent staphyloma, or any dangerous flow of the vitreous humour.

From the great irritability of this patient's eye, I am persuaded, that, had I made use of a speculum to fix it during the operation, the most probable consequence would have been a fatal discharge of the vitreous humour.

On the first and second days after the operation he had a sensation of flashes of light before the eye, but without heat or pain. He took an opiate at night.

On

On the third day, the roller becoming loose, I removed it : there appeared no inflammation of the eyelids : he could distinguish through them when I placed my hand between the eye and a candle. The eye was covered as before. From this to the eighth day he continued free from pain, and was allowed a more generous diet.

On the eighth day, having bathed the eyelids with warm water, I opened them. The eye appeared somewhat inflamed, but naturally full. The pupil was clear, except a very small portion of it next the external angle of the eye, which was obstructed by the opacity of the capsule at that part. The shape of the pupil was somewhat irregular, and larger than natural. He knew his wife's face, and those of some friends who were in the chamber. The eye was covered as before.

On the fourteenth day I observed a substance like mucus on the inferior part of the cornea near the cicatrix of the wound. I had seen this on the eighth day, but did not then take much notice of it. This day I examined it more attentively, and found it to be a substance like a very fine membrane in a sloughy state, taking its rise from the cicatrix of the cornea. It was removed with a pair of small forceps, and its tenacity

city was found to be considerable : his sight was immediately improved by this little operation. The eye having watered freely for some days before, he had been ordered a saturnine collyrium, but, as usual in these cases, with no effect.

As some degree of inflammation was still present, which might be increased by the application of the instrument to remove this opaque substance, it was thought advisable to order a blister to the back of the patient's neck, which in some days had the desired effect.

On the twenty third day from the operation he could see objects very distinctly ; knew perfectly all his friends with the naked eye ; and as he walked through the streets he could readily read the names, &c. of the shopkeepers written over their doors.

I intended purchasing a proper glass for this man ; but he soon relapsed into a habit of drinking spirituous liquors, to which he had formerly been much addicted, and knowing that I highly disapproved of this conduct, he was, I believe, ashamed to let me see him.

I have at different times since, and so lately as a week ago, endeavoured to find him out, but without success : I have learned, however, from his friends that his sight is so good as to
enable

enable him to work at his trade without the assistance of a glass, but that he has led, and still leads, a very profligate life.

- It may be asked what was the nature of the substance enclosed in the cicatrix of the cornea? As it had neither the appearance, nor the consistence of a fragment of the crystalline lens, but rather that of a membrane, as already described, I suspect it to have been a portion of the membrane of the aqueous humour, frequently described by De Wenzel as forming one species of staphyloma after this operation; in which case it appears like a drop of limpid water resting on the cicatrix of the cornea; but that it has some kind of covering we know from its not being removed by the motion of the eyelids. A case of this kind I have seen; the little sac was removed by a snip of a pair of scissors, but returned again next day. Its radical cure was effected by the natural motion of the eyelids.

In the present case, this membrane, instead of forming a little hernia containing aqueous humour, protruded between the edges of the divided cornea, and these fell into a sloughy state, giving the appearance already described.

CASE

C A S E IV.

In the month of July, 1790, John Hannan, a poor schoolmaster from Kilkenny, aged forty-three years, applied to me for relief for blindness occasioned by cataracts. Fifteen years before, an oculist, in this city, attempted to depress that of the left eye, in which he failed, and the man remained blind of it.

The cataract of the right eye had been gradually affected in the usual manner for near six years, and at the time he came under my care all useful sight had been lost for two years. It was of an iron colour, and from a certain streaked appearance on its surface I judged the capsule of the lens to be opaque. In other respects the eye looked well; the dilatation and contraction of the pupil were perfect, and I had reason to believe the optic nerve to be in a sound state: I, however, acquainted him with my doubts of success from the opacity of the capsule; but his situation was so miserably dependent, that he begged I would give him whatever chance remained.

When I undertook this operation I intended to have removed, with a pair of fine forceps,
the

the anterior part of the capsule, should it be found in a state of opacity, a thing very practicable in many cases; but from the circumstance I am about to mention I was obliged to alter my intentions. My assistant, Mr. Richards, secured the upper eyelid without making any pressure on the globe: I introduced the knife into the cornea at the usual place; but scarce had I done so when the eye (which was extremely irritable) suddenly turned in towards the nose: this obliged me to use all possible dispatch in piercing the cornea at the opposite side, and finishing the incision, to avoid being engaged in the iris, and which with considerable difficulty I effected; for so rapid and violent were the motions of the eye, that the blade of the knife, while passing through the cornea, was so much bent, that on resuming its shape it made a noise that could be heard at the farthest part of the chamber. The consequence of all this was, too small an incision of the cornea, the great, and, I believe, most frequent cause of the failure of this operation in the hands of practitioners in general.

The pupil contracted over the cataract, and I had to wait full a quarter of an hour before I could introduce an instrument to divide the capsule,

capsule, which appeared very opaque, and gave some resistance to the needle ; at length, however, it was effected, and by the cautious pressure of my assistant I was enabled to seize the cataract with a small hook, and extract it safely and entirely. It was large, of a brown colour, and hard consistence. The capsule now appeared obstructing more than half the pupil ; but the quantity of vitreous humour lost during the operation, the extreme irritability of the eye, and, above all, the smallness of the wound of the cornea, made it impossible for me to attempt the extraction of this opaque substance without incurring the greatest hazard of destroying the eye. Having, therefore, pushed the capsule as much to one side the pupil as I could with a small blunt instrument, I closed the eye, and trusted to nature for the rest.

I took some blood from his arm, and laid him in bed in the usual position. At night he had an opiate. Next day he was free from all pain or uneasiness, feeling nothing more than a degree of warmth in the eye.

On the night of the second day his bandage loosened and came off, and so little foreness had he in the eye, that, forgetting his situation, he rubbed and opened it. When I saw him next
day

day I found the eyelids without inflammation, and curiosity induced me to open them and examine the eye at this early period. The wound of the cornea seemed to be perfectly united, and the eye naturally full; but there appeared to be a good deal of inflammation and intolerance of light; the pupil was almost entirely obstructed by the opaque capsule, and the interstices had a muddy appearance. As the eye watered much from the irritation of the light, I closed it, with little hope indeed of his getting sight.

From this early opening of the eye it was for some succeeding days in a state of considerable irritability, giving some uneasiness, and watering freely, but unattended with pain. I laid a blister on the back of his neck, and kept up a discharge for some time, which had the desired effect.

I did not open the eye again till the fourteenth day. There was still some degree of inflammation and turgescence of the vessels of the tunica conjunctiva; the pupil had some clear points towards the inferior and internal parts; he could distinguish my features tolerably well, the colours of a painted chair, &c. The wound of the cornea was slightly opaque. He had
been

been out of bed every day for a week past. His room was darkened.

On the 24th day, his sight was improving fast. Though more than 4-5ths of the pupil were obstructed by the capsule, he could, through the clear points, distinguish colours accurately; knew his daughter's face, and with the assistance of a glass of considerable magnifying powers, he could read very large print. He had that imperfection of vision, however, which is common after this operation for a short time, viz. of seeing a candle and other objects double. For some days past he had walked out and washed the eye with cold water.

At the end of five weeks two of the clear points of the pupil were obstructed by the capsule becoming opaque. The one next the internal angle of the eye still remained clear, and though it did not exceed in size the head of a large pin, yet through it, with the assistance of a proper glass, he could see to read print of the ordinary size, to know his friends perfectly, and to do all the common offices of life with ease. He returned in this state to Kilkenny. I have twice seen him in town since, and examined the state of his eye. The clear point had increased somewhat in size, and his vision was considerably improved.

From the event of this case we learn how very small a portion of the pupil will admit a sufficient number of the rays of light to afford tolerable vision ; but I am aware that many may be of opinion that the involuntary motions of the eye during the operation, and the consequent difficulties, might have been prevented by the use of a proper speculum oculi. To this I can only say, that from my own experience, as well as from that of others, I am inclined to believe that it would not have had that effect ; and that when the eye is, either naturally, or from any other causes, in a very irritable state, the use of an instrument of that nature only serves to increase the danger of an operation, as it evidently tends, by its pressure on the vitreous humour, to render the iris more convex, and to throw it more in the way of the knife. But at the same time that it increases the hazard in this particular, it deprives the operator of the only means of obviating it ; for it is a curious fact mentioned by De Wenzel, and of the truth of which I am convinced by my own experience, and that of others, that when the knife becomes engaged in the iris, the only safe method of extricating it is by making gentle friction on the cornea with a finger of the hand employed to depress the lower eyelid, by which means the
iris

iris is found to retract sufficiently to give the operator an opportunity of finishing the section of the cornea. Now if the hand be employed in holding a speculum, it is evident that this very important aid cannot be obtained. But should even this accident be avoided by the dexterity of the operator, still there will be, from the same pressure, great hazard of a sudden and destructive flow of the vitreous humour as soon as the incision of the cornea is finished; at least it will require more dexterity to avoid it than falls to the share of operators in general. I am, therefore, of opinion, that, in disagreeable cases of this nature, the success of the operation must always depend chiefly upon the dexterity of the operator, and that the use of a speculum will only serve to increase his embarrassment and the patient's danger.

Practical Remarks.

Having now finished a faithful, though perhaps tedious, detail of these cases, I shall, from them, and some others which have fallen under my observation, beg leave to suggest the following practical remarks:

First, That the safest and best method of securing the eye, during the operation, is to have the upper eyelid drawn up by an assistant, while the operator himself depresses the lower one,

without making any pressure whatever on the globe of the eye. In ordinary cases I have shewn that a speculum oculi is at best unnecessary ; and in the case of an irritable eye I have shewn that its use would be attended with embarrassment to the operator and hazard to the patient.

Secondly, That a knife, with the point long and narrow, traverses the anterior chamber of the eye with more ease than that in common use, (by which the eye becomes fixed) and from the increasing breadth of the blade towards the handle the operator is enabled, by simply pushing it forwards, to make a section of full one half of the cornea, a leading step in the operation, and which always renders the subsequent one of extraction more safe and easy.

Thirdly, That, after such a section of the cornea as is above described, the various sedative and other applications commonly made use of to the eye, with a view to prevent inflammation, are altogether unnecessary ; and that the adhesion of the eyelids, which often takes place, is most easily and effectually removed by the saliva of the patient applied on the end of his finger, which can be done without removing the bandage, or danger of hurting the eye, as the patient's feelings will teach him to avoid giving pain by any degree of pressure.

Fourthly,

Fourthly, That the loss of any of the vitreous humour, during the operation, should, if possible, be avoided, as its preservation hastens the recovery of vision, (see Case I.) ; but that even a large portion of it may escape without material injury. It appears to me that the recovery of vision is slow in proportion to the quantity of this humour that escapes, but that the loss of it has generally the effect of preventing after pain and inflammation.

Fifthly, That the opacity of the capsule of the crystalline humour is always to be feared, as lessening the chance of success from operation ; yet that even under circumstances forbidding its removal the patient may be restored to sight, as it appears that a very small portion of the pupil remaining clear is sufficient for this purpose—(see Case IV.)

Sixthly, That a sensation of flashes of light coming from the eye the first days after the operation, when unattended with pain, is not an unfavourable symptom—(see Cases II. and III.)

Seventhly, That a preternatural dilatation, irregularity, and loss of power of motion in the pupil, after this operation, are no material impediments to vision—(see Cases II. and III.)

Eighthly, That though a temperate season of the year is most desirable for a patient under-

going this operation, yet that with proper precautions, neither the rigours of winter, nor the heats of summer, prevent its success.

And ninthly, That when the constitution in general, and all parts of the eye, except the crystalline and its capsule, are in a sound state, even an advanced age is no bar to the success of this operation; but that a very vitiated habit, even in youth, will prevent success I know from disagreeable experience: having a few years ago extracted cataracts from a young woman, who was extremely emaciated from amenorrhœa and other causes, the consequence was, that the wounds of the cornea did not unite for many weeks, and not till after one eye had suppurated, though unattended with pain. I was induced to operate in this case from the very favourable appearance of the eyes, and as no accident occurred during the operation, and it was not succeeded by pain, or other circumstances marking local injury, I think I may fairly attribute its failure to the badness of the patient's habit,

It may not be amiss here to mention the present state of Abigail Cremor's eyes, (the woman whose case is given in Vol. IX. Part II. of the London Medical Journal, and who had a cataract extracted from one eye, and depressed in

the other, in the month of October, 1787.) I have seen her very lately, and her eyes and vision are now in the following state :—The pupil of the couched eye has its shape, dilatation, and contraction, perfect : it is, however, somewhat smaller than natural ; and though there is no apparent impediment to vision, yet she does not see objects so distinctly with that eye as with the other, in which the pupil is larger than natural, in some degree irregular, and without any power of motion, but vision is as perfect as it is ever found to be after the removal of the crystalline from its natural situation.

I had long observed a circumstance in this woman's case which puzzled me exceedingly ; it was, that she could not distinguish a letter in a book, even when assisted by the best glasses, though her sight was such as to enable her, with the naked eye, to sew and make all her own cloaths, to know the hour by a clock, and, in short, to do most of the offices of life with perfect ease. I had often expressed my surprise at this peculiarity ; but it was not till last summer that, with much seeming reluctance and mortification, she confessed that she had never learned to read, and that she was unacquainted even with the letters of the alphabet : thus had I an explanation of a circumstance which, from

the appearance of this woman's eyes, and her power of vision in other respects, had led me to form various conjectures relative to her peculiarity of vision ; but which, from my ignorance of the real cause, appeared altogether inexplicable.

Having in the history of the preceding cases sometimes mentioned the name of De Wenzel, I think it necessary to add, that his method of operating, together with a number of curious and interesting particulars relative to the extraction of the cataract, are to be found in a most excellent practical treatise, entitled *Traité de la Cataracte, avec des Observations, &c.*, published by his son at Paris in 1786, in one volume, octavo. His instruments are delineated in a plate at the beginning of the book. A good deal of experience in this branch of surgery had confirmed me in my favourable opinion of that work, and it appeared to me to contain information of such public utility, that I had determined on an English translation of it, with cases and remarks, illustrating the justness of the observations in general ; but at the same time pointing out some particulars in which experience had taught me that implicit faith was not to be yielded even to such authority. On making the necessary inquiries previous to this undertaking, I found I had been anticipated in the translation by Mr. Ware, of London, who had
already

already made considerable progress in it; and from the professional character of this gentleman it is not to be doubted that every justice will be done both to the Author and the Public.

Dublin,

March 8th, 1791.

V. *Account of an Extra-uterine Conception. Communicated in a Letter to Dr. Simmons by Mr. William Baynham, Member of the Corporation of Surgeons of London, and Surgeon in Essex County in Virginia.*

ABOUT ten years ago Mrs. Cock, the wife of a respectable planter in this state, became pregnant a third time, and at the proper time was seized with labour pains, which continued for a day or two, and then left her. She remained in a weak and declining state for some months after; during which time she was visited and attended by several medical practitioners, two of whom declared her disease to be a dropsy of the uterus. At length, however, she regained her health, flesh, and strength, and suffered only a trifling inconvenience from her increased size, which was equal, when I first saw her, to that of a woman in the seventh month of pregnancy. In this state I found her soon after my return to this my native country; and at my first interview with her I told her I was firmly persuaded that she

she had actually been with child, but that the child had never been in the womb; in which opinion I was more and more confirmed in every subsequent conversation with her.

Some months ago, after a severe attack of the influenza, which has for the last two years raged here with very great, and, during the last fall, with fatal violence, the abdominal tumour began to be painful, and was accompanied with a slight redness and inflammation of the skin, near to, and a little on the left of the navel. After attending her for some considerable time, during which I made one attempt, but failed, to relieve her by extracting the child, I was induced, by circumstances, to undertake the operation a second time; which I accordingly performed on Saturday last.

I made an incision in the belly, beginning opposite to, and a little on the left of the navel, and carrying it a finger's breadth or two obliquely downwards, and to the right towards the linea alba, I continued it afterwards in a straight direction, close to the left of the linea alba, about half way to the os pubis. Through this I, with some difficulty, extracted the child by pieces; from the appearances of which I judge it to have been equal in size (when whole) to a full-grown fœtus of nine months.

Some degree of putrefaction had taken place
in

in the child, so as to denude the greater part of the bones of the periosteum and other coverings; but some of the soft parts still retained their colour and texture, particularly the heart and lungs, which were perfectly fresh and sound, and are in my possession, preserved in spirits.

I could find no remains of a navel string or placenta, although both must have existed; but they had probably rotted, and come away in the discharge of matter which had come on, and continued a few weeks previously to the operation, through a small opening that remained after my first attempt. Although the foetus could not have been supported without the intervention of a navel string and a vascular chorion, yet it will perhaps admit of a doubt whether or not the spongy substance, as in a common placenta, had an existence.

The particulars of the case at large I mean to draw up at my leisure, with the addition of some observations, which I will transmit to you, together with a specimen of the bones. Mean time I flatter myself you will not be sorry at receiving this abridged account of so very uncommon a case.

I left my patient yesterday, being the fourth day after the operation, as well as could be expected; and my horse is now waiting at the door to carry me thirty miles to see her again
to-day

to-day—which latter circumstance I offer as an apology for the haste in which I write; as before my return home the ship will have sailed by which you will receive this letter.

Essex County,
Rappahannock River,
Virginia,
January 18, 1791.

VI. *A Case of spontaneous Evolution of the Fœtus. Communicated in a Letter to Dr. Simmons, F. R. S. by Mr. Richard Simmons, one of the Surgeons of the British Lying-in Hospital in London.*

EVERY one who is much engaged in the practice of midwifery must have experienced the difficulty, and even danger, with which the operation of turning a child is sometimes attended; and in cases where the arm presents, and from the strong action of the uterus, it may be hazardous, or even impossible to deliver by the feet, it must be a pleasing circumstance to know that nature, unassisted, is capable of effecting the delivery by bringing about a spontaneous evolution of the fœtus.

This curious and valuable fact, for which we are indebted to Dr. Denman*, is more particularly applicable to those cases of arm presenta-

* See London Medical Journal, Vol. V. pages 64 and 301.

tion where the child is known to be dead ; because in such cases our sole object must be to bring away the fœtus in such a way as shall be the easiest and safest for the mother ; and we shall be more disposed to wait with patience for the spontaneous operations of nature, when we are certain there is no longer any prospect of saving the life of the child.

The number of instances of this spontaneous evolution, hitherto published, being small, and there appearing to be no inconsiderable variety, both as to the length of time and the manner in which the evolution takes place, I am induced to communicate to you the following short account of a case which occurred to me lately in the British Lying-in Hospital, and which fully corroborates the ingenious observations of Dr. Denman on this subject.

Ann Collins, thirty-six years of age, and of a middle stature, was taken in labour of her sixth child about ten o'clock on Tuesday evening, December the 21st, 1790. She had slight pains till about two o'clock the following morning. The labour pains began then to grow stronger, and continued to do so till about four o'clock ; when the midwife, upon examination, found that the left arm of the child had made its way into the vagina. I was now sent for, and by the
time

time I reached the patient the arm had advanced as low down as the shoulder, and was hanging entirely out of the os externum.

The midwife being unable to give me any account at what time the membranes had broken, I was desirous, during the interval of the pains, of introducing my hand into the uterus, in order to effect the delivery by turning; but this, from the frequency and violence of the pains, I found impracticable, without using more force than I was then willing to do.

In a short time the left breast of the child was forced out of the os externum; and as in this case nature seemed likely to do so much, I was now in expectation that a spontaneous evolution of the foetus would take place: and in this I was not deceived, for in about half an hour from the time I came to the patient, and not more than two hours from the first appearance of the arm in the vagina, the child was completely turned by the mere action of the uterus, and was expelled as if the breech had originally presented. The child was rather a large one; the placenta came away very properly; and the woman recovered without any thing particular happening to her.

Newman Street,
March 27, 1791.

VII. *A Case of Petechiæ sine Febre. Communicated in a Letter to Dr. Simmons by Samuel Ferris, M.D. F.A.S. Physician in London.*

To Dr. SIMMONS.

DEAR SIR,

A GREEABLY to my promise, I communicate to you the history of a case which fell under my observation in January last: a case of *Petechiæ sine Febre*. This is either a disease of so rare occurrence, that but few practitioners have had an opportunity of seeing it; or if many have seen it, but few of the many have given any description of it to the Public. Two or three only of my medical friends know any thing of the complaint from their own experience. From one of them, Mr. Rumsey, a very assiduous and observing practitioner at Amersham in Buckinghamshire, I have received notes of several cases, which occurred to him in practice, in his own neighbourhood. As for myself, I never saw but two instances of it before that, the history of which you now receive, and those I saw at Edinburgh about eight years ago.

Dr.

Dr. Graff published an Inaugural Dissertation on this disease, at Gottingen, in 1775; and he is considered as the first who wrote expressly on the subject, although Lazarus Riverius is referred to as having alluded to this disease in his chapter *de febre pestilenti* — (see “*Lazari Riverii praxeos medicæ Lugduni editæ, 1653,*” p. 348.)

Since the publication of Dr. Graff’s Thesis, the history of a similar case has been published in the Transactions of the Medical Society of Copenhagen, and Dr. Duncan, of Edinburgh, has published some account of this disease in a volume of medical cases and observations; and two years ago Dr. Adair, jun. from having observed several cases of it, likewise in Edinburgh, made it the subject of his very ingenious Inaugural Thesis.

Riverius affixed no particular appellation to this disease to distinguish it from those petechial complaints which have fever as essential to their existence. Dr. Graff distinguished it by the name *petechiæ sine febre*; this name conveys no idea of the effusion of blood, which, from some source or other, generally accompanies an appearance of petechiæ without fever, and therefore Dr. Duncan proposed

to call this disease *petechianosos* vel *aimorrhæa*; and in order to connect the idea of both occurrences, Dr. Adair calls it *hæmorrhæa petechialis*: But neither the names proposed by Dr. Duncan, nor that adopted by Dr. Adair, are expressive of the absence of fever; and I, on that account, prefer the name, under which, Dr. Graff first described the disease: for the absence of fever is one of its most striking peculiarities.

C A S E.

M. C. daughter of J. C. a publican, in Hartstreet, Bloomsbury, was brought to me, January 20th last; she was seven years old in December, 1790; she had always appeared to be a healthy, and she was always an active child. She had never been subject to any particular complaints, nor had she been in the least indisposed for three years prior to the appearance of the disease which was the occasion of my seeing her: and three years before, she had only a slight remittent fever, which the apothecary, who accompanied the child to my house, informed me, was not of very long continuance. Her food had ever been as good, and her clothing

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and habits such as the children of people in the situation of her father and mother are usually accustomed to, and they are respectable people, in their line of life.

During the night of the 17th of January last, some bright red spots appeared on her left foot, and on both of her legs : from that night to the 20th, when I first saw her, many more made their appearance on different parts of her body, gradually increasing in number from the legs upwards, and on the 20th there were several on her arms, neck, and face ; those on the thighs were the largest, and many of them were livid, like bruises ; some likewise on the neck and cheek were livid, and there was one larger than a shilling on the instep of the left leg, livid, hard, and somewhat prominent, as if blood had been effused into the cellular membrane, and had coagulated there.

On the morning of the 18th, her mother, when she went to the child's bedside, observed that her nose had bled a little during the night, and that some dark-coloured clotted blood came from her mouth. Her mother then first noticed the spots on her legs. During the night of the 18th, when the child fell asleep, her mother saw her nose bleed, and, as it appeared to her,

more than it had bled the night before, and some blood, partly clotted, and partly fluid, came likewise from her mouth, of a dark colour. The child herself did not seem restless; but her mother, from apprehension, lest the blood should suffocate her, awakened her repeatedly, and immediately as she was awakened, the blood ceased to flow.

No hæmorrhage occurred through the day of the 18th nor of the 19th, nor in the night of the 19th did the nose bleed, as it had done before; but so soon as she was asleep, blood began to flow, and some clots likewise came from the mouth, as in the preceding night, but in greater quantity, and always stopping immediately, whenever she was awakened. She had a very trifling cough on the morning of the 20th, but had not any before, nor even the least sensible indisposition of any kind prior to the described affections observed on the morning of the 18th. Her appetite had been uniformly good, and her bowels regular, and were so on the 20th; nor had her water been observed to change in the least from its usual appearance. She had slept well, had been conscious of no increase of heat, and her skin had been, and was, when I saw her, soft and natural to the touch.

On the 20th, when she was brought to me for my advice, she seemed perfectly alert, not in the least debilitated; her pulse was calm and regular, and by no means weak; but her tongue was a very little white, and, as her mother informed me, it had been more so during the night, and in the morning before I saw her. She was not in the least unusually thirsty; her fauces were tumefied, and the swoln amygdalæ were livid, and seemingly ruptured, for there was the appearance of coagulated blood, of a dark colour, hanging about the surface of them, as on the surface of an ill-conditioned ulcer; her breath was excessively offensive, but was never noticed to have been so before the morning of the 18th. Her gums were clean and sound. She felt no uneasiness from swallowing, nor did she complain of the least pain in any part of her body.

My prescription on the 20th was the following:

℞ . Decocti Corticis Peruviani ʒj
 Pulveris ejusdem, gran. x.
 Syrupi Papaveris albi,
 Tincturæ Radicis Serpentariæ Virginienfis,
 ana ʒj.

Misce fiat haustus quater inter horas xxiv. sumendus.—Let her eat oranges *ad libitum*.

The

The notes which I took of her situation, and the directions I gave afterwards, were as follow:

January 21st. The spots are nearly as yesterday, but some are now observable on the edge of the tongue, on the gums, and one on the *tunica sclerotica* of the right eye. She had no bleeding from the nose, and less from the mouth last night; her appetite is not so good as yesterday; she complains of pain in the right hypogastric region. She has still a little cough; her urine of last night was whitish, that of this morning is of a deep red colour, as if strongly tinged with blood. Her pulse is quicker and rather lower; her tongue somewhat white.

The draughts and oranges to be continued, and let her drink wine and water as her common beverage.

22. She slept well last night, and but little blood came from her mouth. Her nose did not bleed; her appetite is not so good; the spots seem to diminish; the pain in the hypogastric region continues; her urine is still red, but her mother says it is of a lighter tinge. Her pulse is not very quick, but low; her tongue as before.

Let ten drops of the acid elixir of vitriol be added to each draught.

23d. The symptoms are nearly as yesterday; more *vibices* appear on the thighs, legs, and other parts of the body; and very slight pressure on the arms occasions them. No blood flowed from the mouth last night; her urine in considerable quantity, and a little tinged with blood. Her tongue is whitish; she had two stools yesterday.—The same medicines to be continued.

24. The small petechial spots are diminished; and several are entirely gone; the *vibices* remain as yesterday; the urine of last night is of a bright florid blood colour; that of this morning darker, with light red sediment, but nothing like coagulum, nor has she made so much water during the last twenty-four hours, as she made in the twenty-four preceding. She slept well, and but very little blood came from the mouth; the fauces are still tumefied, but the amygdalæ are less livid. The pain of the hypogastric region continues; she sometimes refers it to the seat of the right kidney. She had no motion yesterday; her pulse is quick and low; her tongue a little furred, but moist; she was somewhat more than usually thirsty yesterday, but was not sensible of the least extraordinary heat or dryness of the skin.

Five

Five grains of the Powder of Bark to be added to each draught.

25th. She slept well last night; no blood has flowed from the mouth; her breath is less offensive; the petechial spots are on the decline, but the *vibices* remain on the legs and arms; her urine has been in less quantity than before, and less tinged with blood. She had one motion yesterday; her pulse is nearly as yesterday; her tongue and mouth clean; her appetite mended, and she is in good spirits.

27th. Every symptom is abating; her urine is returning to its natural appearance.

29th. She is still better than on the 27th; the petechial spots are gone; her urine is nearly natural.

31st. She seems in every respect well. The urine of the 29th, has deposited a little sediment, with some few particles of the colour of blood. Yesterday and to-day her urine has been natural; but there are still very slight traces of *vibices* remaining; her appetite and spirits are exceedingly good; her throat is well; her breath not the least offensive; and her bowels are regular.

Her draughts to be continued morning and evening for a few days.

There is nothing more usual than for physicians to attempt to explain the source and causes of the different phenomena of diseases. But the theoretical opinions of different physicians, concerning these circumstances, are frequently so various and contradictory, that we need require no clearer elucidation to prove the general inutility of such attempts.

Under such a conviction, it would be inconsistent in me to enter into a long discussion of the *Ratio Symptomatum of Petechiæ sine Febre*.

It can scarcely be denied that the blood circulating through the vessels of the living body, is thinner in its texture at one time than at another. Riverius, Dr. Duncan, and others, have considered a preternatural thinness of the blood as the immediate source of the *petechiæ* and *vibices* apparent in the disease above described. It has been supposed also by some physiologists that it is possible for such a partial laxity of the vascular system to exist, as to occasion an easy rupture of the finer vessels, from any very slightly applied force, or to admit of the blood's passage through parts not permeable by the blood when such parts are in their natural state, and that without any perceptible diminution of vital energy, or at least sufficient to interrupt the full exertion of mus-

cular action. Such a state of laxity has been likewise considered as the source of the *petechiæ* and *vibices* in the disease just now described ; and the remarkable circumstance of the blood ceasing to flow, as mentioned in the above case, when the child was awakened, is a strong presumptive proof of the justness of such an inference. For as there is less occasion for muscular exertion, during sleep, there is consequently less energy excited, and all the assumed consequences of such a supposed laxity might be expected to happen, whenever the vital energy should diminish as it does in sleep, and to be subverted whenever that energy should be roused for the due performance of muscular motion.

But perhaps the fact is, that both the ascribed causes of thinness of blood, and partial laxity of vessels, may assist in the production of *petechiæ sine febre* ; a disease seemingly very much allied in its nature to the true scurvy.

I have the honour to be, &c.

SAMUEL FERRIS.

John Street, Bedford Row,

April 6, 1791.

VIII. *Instance of a Disease, to which Sauvages has given the Name of Meteorismus Ventriculi; with Remarks. By Robert Graves, M. D. Physician at Sherborne, in Dorsetshire; and Extra Licentiate of the College of Physicians, London.*

ON the 2d of February 1791, Ann Hunt, who had just entered into her fifteenth year, was affected with an uncommon, large, hard, uniform, prominent tumour or swelling in the epigastric region, extending from the sternum to some distance below the umbilicus. It was of a circular form, accompanied with very little or no pain, excepting upon its being pressed; and even in that case, the pain excited was but inconsiderable. She perceived some slight difficulty of breathing, upon using any bodily exertion, particularly that of walking; she had much thirst, yet her appetite for food remained tolerably good, no way depraved, and her belly regular, with but little apparent loss of flesh. No observable change in her countenance could be discovered, except that it had become somewhat of a paler colour than usual.

The appearance of this extraordinary swelling was first perceived in the region of the stomach,
some

some time in the month of June 1790, of a size not larger than that of a hen's egg. From this time it continued gradually to increase, till about the commencement of the ensuing August, when the enlargement which it had received in the course of this interval was such, that the whole space between the sternum and umbilicus became completely occupied by it. Afterwards it remained with little variation to the period of its removal. Shortly after the appearance of this swelling, some medicines were given her with a view to its discussion; but from their seeming inefficacy, joined to her parents' slender ability to procure them, on account of their expence, they were soon discontinued.

As I was strongly persuaded, from the age of the patient, and other circumstances, accompanying the case, that it was to be considered as falling under the denomination of *meteorismus*, as described by Sauvages, I resolved to supply her with such medicines as the nature of the case seemed to me to indicate, in order to learn with greater certainty from the event, whether I was right in the judgement I had thus formed of it. Accordingly on the 2d of February, when she came to me, I gave her some powders, consisting of about eighteen grains of prepared steel,
and

and directed one of them to be taken twice a day. She had likewise a purgative medicine, which was ordered to be taken early the next morning; composed of a scruple of rhubarb, and of about three grains of calomel. This powder operated briskly and well; her stools were of a blackish colour, and slightly offensive.

From this operation the size of the tumour seemed no way diminished or affected. But after a continuance of the chalybeate powders only for the short space of three or four days, her swelling was found lessened to a considerable degree; and in a day or two afterwards was totally removed, so that the parts, which before had been so exceedingly hard and protuberant, became enabled to resume their natural form, situation, and softness. It is now upwards of two months since she was happily relieved; nor has she experienced, as yet, the smallest alarm from any sign or appearance which the complaint has at all shewn of returning again. It may not be improper here to observe that, though the quantity of eighteen grains of chalybs makes a pretty large dose to begin with, and would in most tender habits be productive of some degree of sickness, it had no such stimulant effect in the case before us. The only sensible
operation

operation attendant on its exhibition was, its occasioning violent and frequent eructations of wind ; and it is somewhat remarkable, that this effect took place very soon after the first dose of it had been swallowed, and before the period at which the second was taken.

That the case above mentioned affords a perfect, though uncommon example of the *meteorismus ventriculi*, as described by Sauvages, the symptoms accompanying it, together with the means employed in its cure, bear ample and unequivocal evidence. Although this is a disease, which has been said by some authors not to be of infrequent appearance in chlorotic females, and others labouring under a suppression of the menses, yet it is presumed that the present instance, on account of the peculiarities displayed by it, cannot be deemed altogether unworthy of regard. The slow and gradual manner in which the swelling acquired its increase of bulk ; the enormous and extensive size it attained ; its long continuance afterwards without any very observable change ; and lastly its yielding so speedily to the remedies made use of, are all of them circumstances that may render it perhaps highly acceptable to the curious and intelligent reader.

Of

Of the several particulars here mentioned the two first are certainly of very rare occurrence; seldom to be observed in cases of a like nature. Whether in the stomach or intestines, when any swelling arises solely in consequence of a collection of air, its rise and progress are for the most part sudden, and as it were instantaneous; and there are but few examples of its appearing first of a diminutive size, and then receiving a slow and gradual enlargement for any long continued portion of time. It is from a knowledge of this and other well-ascertained facts, that we are enabled to distinguish, with sufficient accuracy, between dropical swellings and others, of the abdomen, that have nothing but an accumulation of confined air for the immediate cause of their distention. As to the enormous size the swelling exhibited, I believe it may be safely asserted, that such another instance has scarce ever fallen within the eye and observation of the oldest and most experienced medical practitioners. In general the swelling in these cases amounts to little more than to fill up the hollow or depression between the sternum and the umbilicus, observable in those who are altogether exempt from any disease of
those

those parts; “ita ut nulla fit cavitas ab ster-
no ad umbilicum qualis in sanis est *.”

The late Dr. Cullen, who has so deservedly acquired the thanks and praises of all those that are engaged in medical pursuits, for the many important services which have been rendered by him in almost every branch of our science, comprehends this and the three other remaining species of the genus, meteorismus, of Sauvages, under the general title of Tympanites. Though there are undoubtedly obvious advantages resulting from his careful and judicious reduction of the diseases to which mankind is liable, to a less number than what had been before, by rendering the study and knowledge of them more easy and expeditious; yet it is doubtful, whether in consequence thereof, some ambiguity also be not incurred often in practice. No one from a perusal of the account which Dr. Cullen has given us of tympanic affections, would have supposed without the aid of some additional information, that the above case ought to have been referred to this head of diseases. It is much more probable that its cause, under such circumstances, would have been attributed to some morbid obstruction and enlarge-

* Sauvages Nosol. method.

ment of the liver, or of some other adjoining viscus contained within the cavity of the abdomen.

From the event of the foregoing case we have likewise an excellent example of the superior power of steel as a tonic medicine; since the generation of the distending air cannot but be ultimately resolved into a laxity of the fibres of the stomach. In cases even where the complaint is confined solely to the intestines, its use seems from hence to be particularly pointed out. The flatulent nature of these cases has also led to the employment of medicines of the carminative class; but though the milder kinds may be administered without any suspicion of danger, their possessing any real efficacy is extremely doubtful, and particularly where the intestinal canal becomes the seat of the disease.

IX. *Case of a Catheter, left in the Bladder, in drawing off the Urine, for a retroversion of the Uterus. By Mr. Edward Ford, Surgeon of the Westminster General Dispensary.*

MARY WILDING, a thin delicate woman, about twenty-five years of age, was admitted in January last, as a patient at the Westminster General Dispensary. She complained

plained of a painful and involuntary discharge of urine, mixed with blood and matter, from the urethra; and also of a discharge of purulent urine, which was continually flowing from a fistulous fore, situated in the buttock, near the middle of the glutæus muscle. She was in a weak and emaciated state, and had been confined to her bed for several months; every attempt to move from thence being attended with most severe pains, both in the neck of the bladder, and at the fistulous wound in the nates.

Upon introducing a sound into the bladder, an extraneous substance was easily felt within its cavity; and from its hardness, I judged that it might be a calculous concretion. At the patient's desire, I then proceeded to examine the fistulous fore on the buttock, and she told me there was a loose bit of bone in the wound, which frequently made its way outwards beyond the skin, but as often seemed to be retracted with considerable force. I found by examining it with the probe that it lay loose in the sinus, and I endeavoured to remove it with the forceps, gradually drawing it outwards. This process was not attended with much pain; but when the extraneous substance was brought forward about half an inch beyond the integuments, a

further removal of it seemed impracticable, as it was strongly held back by the contraction of the muscles. Whilst it was retained externally by the forceps, I viewed it closely to ascertain whether it was an exfoliation of carious bone, or a calculous concretion that had made its way outwards from the bladder, but was much astonished to find that the substance protruded from the wound, was evidently the bulbous end of a silver catheter.

This discovery instantly induced me to suspend any further operation, as it was clear that an attempt to remove the catheter by extracting it forcibly through the wound, must occasion a considerable laceration of the fundus of the bladder; and I was anxious to collect from the patient, such circumstances, as might explain her unfortunate situation. She professed herself totally ignorant by what means the catheter had been lodged in her bladder, and could with difficulty believe the information I gave her. The narrative she furnished me with was, that she had been brought to bed four months; that in the third month of her last pregnancy, she had been seized with a difficulty of voiding her urine, which had been several times drawn off by means of a catheter; that she had experienced great relief from this operation, but that

the last time it was performed she had felt great pain, and had ever since been unable to remove from her bed without great distress; that she had been safely delivered at the expiration of the ninth month; and that she had since suckled her infant, though in the most wretched and debilitated state. It was obvious from this account, that the catheter had escaped from the hands of the operator the last time the urine had been drawn off; that it had slipped into the bladder, and had been suffered to remain there; and that the only method of relieving her was to extract it through the meatus urinarius.

From the weak state in which she lay, exhausted by suckling her infant, by pain, and by the discharge from the wound, I declined performing the operation till her health should be a little invigorated by weaning the child, and by a more nourishing diet. When this was accomplished, I was favoured with the assistance of Dr. Jackson, Dr. Bland, and Dr. Combe, all of whom were anxious to see so singular a case.

The patient was laid upon a table and secured in the manner usually adopted in the operation of Lithotomy. The urethra was dilated by the blunt gorget introduced upon a female staff, and the catheter was then attempted to be taken

out by the forceps. This part of the operation was attended with much difficulty, as the catheter lay transversely in the bladder, the handle of it resting on the arch of the pubis, and its other extremity on the crura ischii. It was dislodged from its situation by drawing the blunt end outwards through the posterior wound, so that the handle of the instrument being detached from the pubes, was more easily brought forward through the opening in the urethra, and extracted. The catheter, which is now in my possession, was found covered with a slight incrustation, as represented in the annexed drawing*.

The operation was finished by extracting a few small calculi from the bladder. The patient was then put to bed, and the same regimen pursued as after cutting for the stone. A slight fever came on, but was apparently more owing to the state of her breasts, as she had just weaned her child, than to the operation. The fistulous opening on the buttock healed in a few days, the urine passing entirely through the natural passage; and in one month she was perfectly well. She now retains her urine, and suffers no inconvenience from this extraordinary calamity.

The foregoing case is, I believe, un-

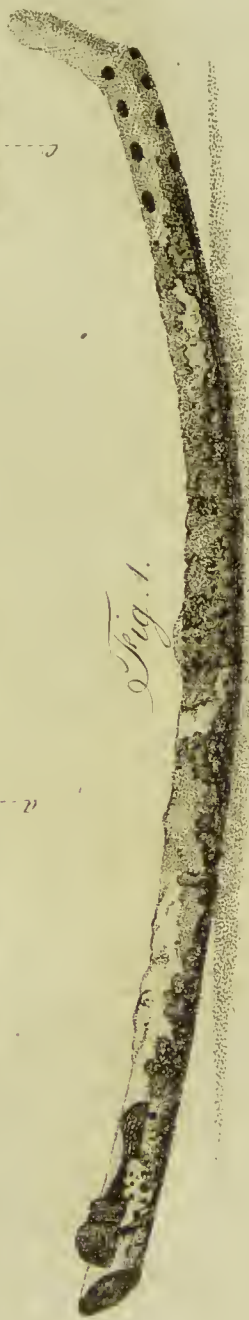
* See plate I., fig. 1.

precedented

Fig: 2.



Fig: 1.



precedented in medical history. It affords a singular example of an accident occurring from an operation in surgery, which has usually been deemed easy to perform, and free from hazard. The natural structure and situation of the female urethra warrants the general opinion of the safety of this operation; but when an alteration takes place in these parts, either from pregnancy or other causes, the operation of drawing off the urine may become liable to difficulty.

In cases of retroverted uterus, we find, by the testimony of Dr. Hunter, and other practitioners, that this operation is not always to be done with facility, and that in some cases it has been impracticable. The poor woman who is the subject of this paper had been liable to a retroversion of the womb, both in this and in a former pregnancy. Her urine had been drawn off a few days before this accident by a man-midwife of eminence; but being suddenly taken ill, she applied to a person in her neighbourhood, from whom this accident happened. His business obliging him instantly to leave London, he heard no more of his patient, and imagined, I suppose, that the catheter had been expelled by the efforts of the bladder.

Golden Square,

May 16, 1791.

H 3

X. Case

X. *Case of an Imperforate Rectum. By the same.*

MARCH 6th, 1791, I was desired to see a male infant, two days old, who was supposed to have an imperforate rectum. He appeared to be a strong healthy child, well formed in every other respect, had taken nourishment the day before, and as he exhibited externally no marks of mal-conformation, when examined at his birth, it was not supposed that he laboured under this defect till it was found that no evacuation had taken place through the intestines, that he rejected his food, and vomited up every thing he had taken.

When I saw the child he was continually vomiting; the matter thrown up was of a dark yellow colour, and fœtid, and the abdomen was tense and swelled: in other respects he looked healthy, had voided his urine properly; and the anus was naturally formed as far as regarded its external appearance.

I endeavoured to introduce my little finger through the sphincter ani into the rectum, but found an uncommon resistance in the first attempt, the parts not admitting of being dilated as usual; and when this difficulty was with some
force

force overcome, at the distance of an inch from the external parts, there was an obstruction to be felt, which resisted every effort I made to penetrate it, first with the nail of my finger, and afterwards with the blunt end of a probe.

The first consideration which offered to my mind, was to perforate the obstruction with a small trocar; and in order to do this as safely as possible, a small catheter was introduced through the urethra into the bladder, which served as a direction to avoid wounding those parts in the operation. The canula of the trocar was then introduced into the anus, under my finger, which defended the urethra, and was fixed as well as I could against the obstructed part of the canal.

The stilet was then carried up through the canula, and pushed through the obstruction in a direction rather backwards towards the os sacrum. On withdrawing the stilet it was followed by a discharge of fæces, through the canula, which continued for an hour so as to form rather a copious stool. Upon taking out the canula, a bougie was attempted to be introduced through the artificial opening, but without effect.

The child was now left an hour, and on my return I found his belly more tense, and that his vomiting continued. I therefore directed several clysters of oil and water to be thrown up by means of a small pipe which was fortunately conveyed through the artificial opening into the gut. These clysters brought off a considerable quantity of fæces, but did not seem thoroughly to empty the intestinal canal; so that I deemed it expedient to attempt an enlargement of the opening, by means of the point of a blunt gorget carried up in the groove of a common director. A farther discharge of fæces ensued; and the child was then put into a warm bath, and castor oil was afterwards administered by the mouth. Notwithstanding these remedies, the vomiting continued, the child became convulsed, and died in the course of the following night.

Upon opening the body the next morning, I found marks of considerable inflammation in the intestines, principally in the larger ones, which were inflated to a great degree. There was no obstruction, however, to be found in any part of the intestinal canal except that in the rectum.

The drawing which accompanies this paper will show the manner in which the intestine terminated

terminated in a blind pouch, at the distance of an inch from the anus, in the hollow of the os sacrum*. The space between the intestine and the anus was lined with an inelastic ligamentous substance, which would probably have produced much inconvenience to the patient in retaining his stools, had the operation performed protracted his existence.

Golden Square,
May 20, 1791.



XI. *Facts relative to Pemphigus. Communicated in a Letter to Dr. Simmons by Mr. R. B. Blagden, Surgeon at Petworth in Sussex.*

I WAS, in January, 1790, desired to see a girl, two years and a half old, who had been observed to droop the preceding day. The child looked heavy, and was feverish. A neutral mixture with tartarised antimonial wine was directed for her. The next day the child was more feverish, and had slight delirium: an enema was then injected, and a blister put be-

* See Plate I. fig. 2, in which *a* refers to the intestine, *b* to the ligamentous substance above described, and *c* to the anus.

tween the shoulders. Late in the evening of that day pustules were observed on the waist, and before the morning on the other parts of the body, and on the extremities, but chiefly on the forehead and scalp. Within three days the pustules became complete little bladders, being grown turgid with a yellowish fluid.

The general size of the vesicles was that of an almond, but the size of those on the forehead and waist approached nearly to that of a nutmeg.

The larger ones were pierced, the smaller ones were suffered to burst of themselves, and not a vesicle filled again.

The unguentum ceræ was made use of as dressing. The vesicles on the extremities and on the head were healed in about ten days. It was very evident that the child suffered extremely from the soreness of those on the waist, which were not completely healed in less than two months. The vestiges of five of the largest of these, and of two on the forehead, will ever remain.

All the hair, which grew underneath the vesicles on the scalp, came off with the plasters.

Many very minute vesicles were observed in the mouth, and the child showed a repugnance
to

to swallow. As the fever and delirium went off on the appearance of the eruption, the medicine was laid aside. No fresh pustule appeared after the fourth day.

Five days after the appearance of the eruption on this child, an infant, fourteen weeks old, belonging to the same parents, grew feverish, and, within the next three days, had an eruption exactly resembling the above, except in the size of the vesicles, which, in this case, were no larger than pease; they burst, and the parts were well in about a week.

This child was not ill enough to require any medicine internally.

And now may I be permitted to draw the following conclusions:—

That the disease is contagious;

That new vesicles do not, in every case, arise after the end of the fourth day;

That the fluid they contain does not, even in every case of pemphigus simplex, appear to be of a bland nature; and

That, in some instances, no apparent absorption of it takes place?

Petworth,

May 5, 1791.

XII. *Ac-*

XII. *Account of a Fact relative to Menstruation, not hitherto described. Communicated in a Letter to Dr. Simmons by Thomas Denman, M. D. Licentiate in Midwifery of the Royal College of Physicians, London.*

To Dr. SIMMONS.

DEAR SIR,

ALL the common circumstances attending menstruation have been well described by various authors; but having frequently seen a substance expelled with the menstrual discharge, which had escaped observation, I beg leave, by your favour, to give a short account of it.

In the examination of that discharge, for the purpose of investigating the state of the uterus, a membranous substance had been observed, which passed, without any particular notice, as the token of an early conception, or as the casual form of coagulated blood. Examining this substance with greater attention, I constantly found that one surface had a flocky appearance,

appearance, and the other a perfectly smooth one; that it had, in all respects, the resemblance of that membrane which Ruysch had called the *villous*, and which the late Dr. Hunter, speaking of abortions, had described with great precision, and called the *decidua*. To put the matter out of doubt, about two years ago I requested the favour of Dr. Baillie to examine some portions of it, and he agreed with me in thinking it similar to the *decidua*.

Having never observed this membrane discharged by unmarried women, a doubt arose whether it was not really a consequence of an early conception; but I have the most undoubted proofs that it may be formed without connubial communication, and that the uterus, in some women, has the property of forming it in the interval between, or at each period of the menstrual discharges. It seems particularly necessary to establish this fact, as the appearance of the membrane might give rise to erroneous opinions and unjust reflections.

In every case, in which this membrane has been observed, the women have menstruated with pain, and the discharge has flowed slowly, and apparently with difficulty, till the membrane

brane has come away, which in some cases has been in small flakes, and in others in pieces equal to half the extent of the cavity of the uterus, of which they retained the shape. But whether this membrane be expelled in every case of painful menstruation, my experience does not enable me to decide.

No woman, in the habit of expelling this membrane, has been known to conceive; and this observation leads me to speak of the treatment which has been advised for making such a change in the state of the uterus, that it should be divested of the property of forming this membrane at the time of menstruation.

There does not appear to be any external peculiarity of constitution, or disposition to any other complaint in those who have been liable to the formation of this membrane, which seems to be a proper office performed at an improper time. Recourse has been generally had to mercurial medicines in one form or other, sometimes as active purges, and sometimes carried so far as to occasion a slight salivation: but the safest method, and, as far as I know, the most effectual, is, to give small doses of calomel every night at bed time for several weeks together;
and

and twice, in the course of the day, a large dose of the volatile tincture of bark.

I remain, dear SIR,

Your very humble Servant,

THOMAS DENMAN.

Old Burlington Street,

May 5, 1791.

XIII. *Practical Observations on the Treatment and Causes of the Dropsy of the Brain.* By Thomas Percival, M. D. F. R. S. and S. A. Lond.; F. R. S. and R. M. S. Edinb.; President of the Literary and Philosophical Society of Manchester; Member of the Royal Medical Society at Paris; of the Royal Society of Agriculture at Lyons; of the Medical Society of Aix in Provence; of the Philosophical Society at Philadelphia, and of the American Academy of Arts and Sciences, &c.

THE safety and efficacy of mercury in the hydrocephalus internus has been fully established, by the experience of various medical practitioners, in this and other countries since

since the year 1777, when the public was first informed of its successful administration*; and though it is far from being a certain remedy, yet the almost constant fatality of this disorder, under every antecedent method of cure, renders it a valuable and important acquisition to the healing art. But in the recital of one of the earliest cases in which it was employed I have perhaps too much disparaged former modes of treatment, and too hastily declared my sole and exclusive trust in the internal and external use of mercury; for there are several medicinal aids, which, however insufficient in themselves to conquer this formidable disease, may contribute to so happy an event, by mitigating pain and spasm, by promoting absorption, and by increasing the serous discharges of the body. With these views I now generally prescribe either opium, musk, salt of hartshorn, flowers of zinc, squills, or blisters, in conjunction with the mercurial course, with which they perfectly coincide. The preference to be given to one or other of these remedies the circumstances of

* See Medical and Philos. Commentaries, Vol. V. p. 174, Vol. VI. p. 219; Medical Observations and Inquiries, Vol. VI. art. vi. by Dr. Dobson, art. viii. by Dr. Haygarth.

the case will sufficiently indicate ; and it would be a false and unjustifiable sacrifice to simplicity of practice not to avail ourselves, in the treatment of so dreadful a malady, of subordinate means, which may prove auxiliary, and cannot counteract the salutary powers of what merits our chief reliance. In pursuing this enlarged plan, I have experienced fewer disappointments than formerly, and have derived satisfaction under it, from the consciousness of no neglect or omission. When the pains are very acute, opiates, in large and repeated doses, are essential to the cure ; but if the patient be in a state of *coma*, they are obviously improper, and musk, combined with salt of hartshorn, should be freely administered. Under every circumstance of the disease blisters are expedient ; and the application of them should be renewed as often as can be done without exciting strangury. I have tried fox glove in but few cases of hydrocephalus. In one, which was of long continuance, and terminated fatally, this remedy produced extreme debility, various distressing nervous symptoms, and was attended with no beneficial operation. Mercurials, and other active means, had also been tried in vain ; and all hopes of relief being given up, the

child was sent into the country, where, though totally blind, he was not without enjoyment; and retained his faculties in a perfect state till death, notwithstanding it was found, on opening the head, that the right hemisphere of the brain was entirely dissolved, the corpora striata destroyed, and the left lateral ventricle contained twelve ounces of water. In another case, which lately occurred, fox glove was administered, with opium and calomel, according to the following formula :

R. Pulv. digital. purpur.
 Opii colati,
 Calomel. pptⁱ, aa gr j. M.
 F. Pilulæ ij. 4^{ti} horis sumendæ.

After the second dose of these pills, the patient, who was about twelve years of age, fell into a sound sleep, which continued six or eight hours. She awaked, in a great measure, free from pain, highly refreshed, and capable of viewing the light. Her head had sweated profusely, a large flow of urine had taken place, and from this period the commencement of recovery was clearly to be dated. But I am inclined to ascribe the salutary change rather to the

the opium than to the fox glove, and to the opium only as auxiliary to the powerful action of the mercury, which had been previously and very largely administered in the way of unction; and I am strengthened in this conclusion by the antecedent effects of mercury in the same patient, under the direction of Mr. Henry, before I was consulted; for considerable relief had been obtained by it, though afterwards she suffered a relapse; and the course was renewed by my advice, with the additional remedies above mentioned.

I have examined various histories of hydrocephalus, related in different medical journals, since the adoption of mercury in the treatment of it, and of twenty-six cases, noted indiscriminately in the course of my inquiries, I find that eleven recovered, and fifteen died. Of the recoveries, mercury was employed in seven of the instances, and other remedies in the remaining four. Of the deaths, mercurials were employed in four cases, and other remedies in eleven. These facts, drawn from authentic records *, afford a striking proof of the superior
advan-

* Medical Observations and Inquiries; Dr. Duncan's Medical Commentaries; London Medical Journal; Memoirs

advantages of the present method of practice in a disease heretofore deemed so fatal, and my own experience confirms the conclusion; for in the above references no cases are included which fell under my own inspection.

A profuse perspiration of the head is not an unfrequent effect of the exhibition of mercury; and it should be encouraged by wrapping the head in flannel, for it sometimes affords speedy relief, of which I shall relate, from my notes, the following instance:—October 23, 1784, I visited Master E., a child of eighteen months old, who laboured under the hydrocephalus internus: his eyes were distorted, and in every position, without the power of seeing: his pulse beat one hundred and sixty strokes in a minute: he shewed signs of great pain in his head, and frequently rocked it on the pillow. The right arm and leg were motionless. The bregma was soft and enlarged. I directed a blister, the *unguent. hydrarg. fort.*, and small doses of mercury internally. In twenty-four hours a most profuse sweating of the head came on. The pain and distortion of the eyes were considera-

of the Medical Society of London; Dr. Donald Menro's Letters and Essays.

bly

bly abated. Little inflammation or serous discharge had been produced by the blister.—October 25th, the power of motion was restored to his paralytic arm and leg, and he saw objects distinctly, as appeared by his catching at my watch when held before him.—On the 27th he relapsed into his former state.—October the 30th he died; but permission to examine the head could not be obtained.

The good effects of mercury in hydrocephalus internus are independent of salivation; and it is truly astonishing that very large quantities of the *unguent. hydrarg.* may be used in infancy and childhood without affecting the gums, notwithstanding the predisposition to a flux of saliva at a period of life incident to dentition. Between the 8th of February and the 7th of April, 1786, a child, under one year of age, received, by successive frictions, four ounces, six drachms, and two scruples of the stronger mercurial ointment. One scruple was administered each time: the operation took up more than half an hour, and the part to which the ointment was applied was always previously bathed with warm water, precautions adapted to secure the full absorption of the mercury. Thirty-seven grains of calomel were also given

at proper intervals, and in sixteen doses, during the same period. The child recovered without symptoms of salivation, and has ever since remained free from any painful affection of the head.

In the prosecution of the mercurial course it is necessary to guard against laxity in the bowels, or this remedy will be carried out of the system, and produce no salutary effect. Costiveness, however, is not to be permitted, lest it increase sickness, fever, and pain : clysters, therefore, of milk, oil and salt, should be injected as often as they may be deemed expedient.

An acceleration of growth, to an extraordinary degree, is frequently observed after the dropsy of the brain has been subdued by mercury. In one case, which fell under my own direction in 1784, a young lady, nine or ten years of age, of a noble family in this county, increased two inches in stature within the space of four months succeeding her recovery.

The comparative frequency of the hydrocephalus at different periods of life, the predisposition of each sex to it, and the duration of the disease, as deducible from the records of the twenty-six cases to which I have already referred, are noted in the following table :

Age,

Age.

From birth to one year	—	—	2
— one to two years	—	—	1
— two to five	—	—	8
— five to ten	—	—	6
— ten to twenty	—	—	5
— twenty to thirty	—	—	4
			—
			26

Sex.

Event.

Males	—	14	Died	—	15
Females	—	12	Recovered	—	11

*Duration *.*

Two weeks and under	—	—	7
From two weeks to three, inclusive,	—	—	6
— three weeks to four, ———,	—	—	4
— one month to six weeks, ———,	—	—	1
Three months, with intermission,	—	—	1

This table is not sufficiently comprehensive to furnish any decisive conclusions ; and it was my intention to have enlarged it, if leisure had

* The duration, I believe, is only stated in nineteen of the twenty-six cases.

permitted, by a review of the numerous cases which have occurred in my own practice. Several at this instant present themselves to my recollection, which were of very long duration. The child mentioned above, to whom fox glove was given with injurious effect, subsisted under the disease sixteen months. The malady came on by almost insensible degrees, and was attended with very little pain: his head was large, but neither the bregma nor the sutures were open: his eyesight failed, and a complete amaurosis succeeded. The left side became paralytic; and in this melancholy situation he continued till a short and slight attack of fever put an end to his existence. — Another case, about which I was consulted, I shall relate more at length, as it was attended with many curious and interesting circumstances. A lady, aged twenty-five years, of a healthy constitution, and of a florid complexion, was delivered of her third child in July, 1786. During the latter months of pregnancy she was subject to frequent head-achs, attended with great coldness of the legs and feet. The head-achs abated after delivery; but in the succeeding month of October they recurred periodically every morning, and were generally alleviated during

during the course of the day. At this time she suffered extremely from habitual costiveness. In December her oldest child, whilst sitting on her knee, was seized with a convulsion, which occasioned such terror and agitation in the mind of the mother as to aggravate, to a very great degree, the pains of her head. Blisters, an emetic, and other means were directed, without any material or lasting relief. In February, 1787, a slight shaking of the head came on; and a physician in London, deservedly held in high estimation, was consulted, who delivered it as his opinion that the disease was an extravasation of water in the brain. At this period the pupils of the eyes were greatly dilated, and the sight so much affected, that she was incapable of reading. Her speech also was scarcely intelligible. In April application was made to another very eminent physician, who directed an issue between the shoulders capable of holding twenty-four peas, and afterwards advised the mercurial ointment, which was employed in the quantity of one drachm every night during the space of a month. A profuse salivation succeeded, but with little or no benefit. Electricity, the Bath waters, frequent emetics, stimulating cataplasms to the head, &c. were
equally

equally inefficacious. February the 14th, 1788, I received a statement of the case. The lady had then for some time declined all medical assistance; but she suffered under an almost general paralysis, and was incapable either of dressing or of feeding herself. Her head was sometimes totally free from pain during the space of a day or two, but always in so shaking a state, that she was obliged to use a steel supporter. The muscles of the jaws were likewise so relaxed, that manducation was performed with great difficulty. In this long-protracted case there is reason to suppose that a serous effusion subsisted both in the ventricles and between the membranes of the brain; and it is not unlikely that the spinal marrow also was affected by a similar compression. Under such circumstances, and after the trial of so many active remedies in vain, directed by physicians of distinguished skill and judgment, I felt a peculiar diffidence in offering any encouragement for the use of farther means. But when a great and good end is in view, the possibility of attainment is not only a justifying motive of exertion, but even renders it a duty; and experience evinces that success sometimes crowns our endeavours when there are no probable

grounds of expectation of it. I therefore recommended that the strength of the patient should be supported by a cordial and nutritive diet ; by residence in a dry and temperate atmosphere ; and by gentle exercise, either natural or artificial. Of the latter kind, friction of the abdomen and of the spine, with new flannel, every night and morning, was particularly advised. As the issue in the back appeared to be too wasting a drain in so advanced a period of the disorder, I hinted the propriety either of healing it or of dressing it only with one pea. The vapour bath was proposed to the lady, which, by warming the whole habit, might give energy to the nervous and lymphatic systems. As the mercurial course had been tried without benefit, it could not be deemed expedient to renew it to any extent : but I conceived that small quantities of the *unguent. hydrargyri* might be rubbed, with advantage, into the spine every night at bed time. If this were objected to, I mentioned the use of a volatile embrocation as a substitute. Sternutatories having sometimes proved beneficial in hydrocephalic affections, I therefore suggested the use of them in the present case ; and recommended the trial of musk, æther, and the calx
of

of zinc. If an adequate degree of strength to bear the fatigues of a sea voyage were recovered by these or other means, I urged the attempt of it, at a proper season of the year, as likely to produce a salutary revolution in the whole system.

Such was the advice I gave in this interesting and affecting case ; and I regret that no other information has been communicated to me, of the result of it, than that the lady received consolation and benefit from the plan proposed to her trial.

Our imperfect knowledge of the structure of the brain, and of the diversified energy of the nerves in their origin, progress, and termination, necessarily involves the disorders of the head in a peculiar degree of uncertainty ; and it is often extremely difficult to discriminate even between the sympathetic and idiopathic affections of that important organ. It cannot, therefore, be surprising that the causes of hydrocephalus have not hitherto been ascertained with any degree of accuracy or precision. The light which dissections afford is obtained only at the close of the malady ; and the state of the encephalon may have undergone considerable changes, either by the operation of nature, or
by

by the action of the medicines employed. A medical friend informs me that he lately assisted at the dissection of a child whose death was the consequence of a convulsive fit. The child had been indisposed about two months with frequent pains of the head. Worms had been suspected; but anthelmintic remedies afforded no relief. The vessels of the brain were found to be uncommonly turgid, and the ventricles contained about double or treble the ordinary quantity of serum. In this case I apprehend the turgescence of the vessels was the effect, and not the cause, of the convulsions; for the reflux of the blood from the head to the heart being obstructed during the fit, in which I believe the patient expired, the vascular distention must have been permanent. The redness and even blackness of the face, which takes place in convulsions, affords sufficient proof of sanguineous accumulation.

That the disorder under enquiry originates sometimes in inflammation, I can entertain no doubt, from several cases which have occurred within the circle of my observation; one of which I shall here briefly relate. Miss —, a robust young lady, at a boarding-school in Manchester, after dancing very violently, went

out to the pump for a glass of cold water, which she eagerly and hastily drank. In a few minutes she ran towards the wall, and leaning against it, cried out, oh my head ! From this instant the pain never ceased ; and becoming more and more acute, was succeeded by all the train of afflictive symptoms which characterize the hydrocephalus. At the end of three weeks she died, and I was present at the opening of the head. The brain was found to be in a state of inflammation ; the vessels were extremely turgid ; and the ventricles contained at least seven ounces of water.

But I have reason to believe that hydrocephalus most frequently arises from glandular obstruction, and either local or general plenitude. A family, with which I have been long and intimately connected, has repeatedly suffered from this formidable disease, as dissections have manifested. But in the following instance, the fatal event took place before the extravasation of water, which, from the state of the brain, and the constitutional predisposition, would probably have succeeded, if the disease had been of longer continuance. Master —, a fine healthy boy, aged fifteen weeks, who fed heartily and grew very fast after he was weaned ;
though

though regular in his stools and well exercised, was seized with convulsions, May 11th, 1772. He had been observed, a day or two preceding this attack, to be averse to motion, and as there appeared to be no specific symptoms of small-pox or dentition, the disease was ascribed to general plenitude. Gentle evacuations were therefore directed; blisters applied; and anodyne and antispasmodic remedies administered. By these means the fits gradually abated in frequency and violence. May 13th, the convulsions entirely ceased, and every symptom seemed to be favourable: but in the evening, his pulse intermitted, his respiration became laborious, and sometimes suspended, and his countenance was sunk and ghastly. By sinapisms, blisters, and cordials, the vital powers were again roused: but the next evening he relapsed, and died early the succeeding morning. His body was opened. The viscera of the abdomen and thorax were found, the mesentery excepted, the glands of which were much obstructed and enlarged. The vessels of the brain were turgid, but not inflamed; and no water was yet effused, either between the membranes or into the ventricles.

In a chronic affection of the head, of many
years

years continuance, the patient informed me, that to hide certain marks left by glandular tumours in his neck, he used, for a long time, a strong and broad stiffening under his neckcloth; and frequently tied it so tight, as to occasion pains of the head, flushings of the face, and giddiness. This practice he pursued till the commencement of the melancholy disorder, about which he consulted me; and was persuaded that it greatly contributed to bring it on. The symptoms of the case were acute pains of the head; a vertigo in stooping; a sense of fainting; when the head was suddenly thrown back; a strabismus, and protrusion of one of the eyes; a paralytic debility of the whole frame; and a considerable diminution of mental energy. By the continued use of tonics and stimulants; by a cordial regimen; and by drinking goats-whey on the mountains in Wales, this gentleman's health is, in a tolerable degree, restored. Amongst the stimulants employed, the mezereon root, mercury, and blisters are comprehended. In this singular case, the internal vessels of the head were probably at first over distended; and some degree of serous extravasation permanently ensued. But the complaint was so gradually produced, that the vital actions sustained a lasting injury

injury from turgescence of the brain, without any concomitant inflammation.

In reviewing some notes on Hydrocephalus, which I made many years ago, I find that of twenty-two cases enumerated, eleven were known to be strumous; three were suspected to be such; and four were accompanied with an enlargement of the head, probably from a rickety constitution. So that in eighteen of these cases, the inflammatory diathesis was not likely to prevail. But such subjects, from the laxity of their fibres, must have been incidental to general or partial plenitude; to glandular obstructions, and to a feeble action of the lymphatic system. And these circumstances peculiarly dispose to an effusion of water in the brain; because that organ is so copiously supplied with vessels of every order. For anatomists have estimated that one tenth of the whole mass of blood circulates within it, although the weight of the encephalon does not exceed one fortieth part of the whole body. The following case affords some confirmation of this reasoning. Master —, the son of a strumous parent, was born with a large head. Being a lusty child and growing well, the disproportion became less observable within the space of two years.

He was then attacked with a malignant itch, the cure of which proved very obstinate; and when the eruption gave way, its recession was too sudden. The child's appetite abated, and his flesh, strength, and spirits were much impaired. He was sent into the country, where he seemed to be recruited. But about the end of May, he sickened, grew languid, averse to food, dull, watchful and yet drowsy. His countenance had that peculiar cast, which led me to suspect an effusion of water in the brain, though his pulse was not much changed, nor his eyes otherwise affected than by the loss of their usual brightness. June 2d. The pupils became dilated, and the pulse was sometimes slow and sometimes quick. The child seemed to feel uneasiness in the head, but gave no signs of acute pain. June 3d. A complete amaurosis took place, with occasional squinting and frequent convulsive stretchings of the limbs. The pulse continued to be irregular, and the urine was voided in large quantities. No symptom of acute pain occurring, I examined the head attentively, but did not perceive either any opening of the sutures, or softness of the bregma. The mother informed me that the child's head had been gradually augmenting in
size,

nize, during the last three months, without a proportionate growth of the rest of the body, insomuch that she had been obliged to make for him new and large night-caps.

Practical writers have related many cases of dropical *metastasis*. I have seen an affection of the brain, which appeared to be hydrocephalic, and probably originated in inflammation, suddenly and completely relieved by the attack of an acute pain in the side, which terminated in a fatal abscess and hydrothorax. When an incision was made through the cartilage of the third rib, a quantity of water flowed out of the chest. The sternum being removed, evident marks of inflammation were discovered; the lungs adhered strongly on every side to the pleura, and were covered with a purulent matter. An open abscess was found in the posterior lobe of the left side, the rupture of which, in all likelihood, occasioned the sudden death of the patient. Not being present at this dissection, I had afterwards to regret that the surgeon omitted to examine the state of the brain.

Whether the following case, with which I shall conclude these observations, is to be ascribed to *metastasis*, I leave to the decision of the reader. Mr. C.'s daughter, aged nine years,

K 2

after

after labouring under the symptoms of phthisis pulmonalis four months, was affected with unusual pains in her head, which increased rapidly to such a degree, as to occasion frequent screamings. The cough, that had before been extremely violent, and attended with stitches in the breast, now abated; and in a few days ceased almost intirely. The pupils of the eyes became dilated; a strabismus ensued; and in about a week, death put a period to her agonies.

P. S. The foregoing practical observations have been drawn up from my notes, or from reflection, without consulting, at the time; any books on the subject. But since these were written, I have perused, with attention, a valuable and very interesting work, lately published by Dr. Quin, on the dropsy of the brain. The view which he has given of this disease appears to be, in general, judicious and accurate: yet I am inclined to ascribe less than he does to inflammation; and consequently should recommend much caution in the use of blood letting, even in the first stage. For the vessels of the brain seem quickly to lose their tone by distention; and great torpor and debility of the whole system succeed. If depletion, therefore, be indicated

licated, it will be best accomplished by a stimulating mercurial purgative, and by the application of a large blister to the head. For Dr. Quin is mistaken in supposing, that the mercurial unction was ever directed to that part of the body, either by Dr. Dobson or myself. He has fallen likewise into another error, in stating that the first patient cured by Dr. Dobson, of Hydrocephalus, was his own child, and that the fortunate event depended on the opportunity that this afforded of the most early attention. This, indeed, was the case, with respect to one of the early histories, which I have related ; and I acknowledge the justice of the Doctor's conclusion concerning it.

Manchester,

May 20, 1791.

XIV. *An Account of the Preparation, Mode of Application, and Effects, of a Liniment recommended by Roncalli in the Treatment of scrophulous Tumours. By Henry Streitt, Professor of Chirurgical Pathology in the Imperial and Royal Medico-Chirurgical Academy at Vienna. Vide Abhandlungen der K. K. Josephinischen Medizin. Chirurg. Akademie zu Wien. Vol. I. 4to.*

THE remedy here recommended for the cure of scrophulous tumours was made public so long ago as the year 1741, by Roncalli, who obtained it from a surgeon at Modena; and the author of the paper before us claims only the merit of bringing it again into notice.

Roncalli describes the preparation and manner of using it in these words :

“ Felli bovino in sua cysti integro addantur
 “ tria cochlearia salis communis & olei nucum ;
 “ cysti deinde aliquo temporis intervallo, aut
 “ soli, aut levissimo calori, exposita. Stuppæ
 “ ichore illo humectatæ, bis in die scrophulosi
 “ tumoribus aptentur.” *

* Hist. Morborum. Folio, Brixia, 1741, p. 42.

Professor Streitt observes of this liniment, that repeated trials have convinced him, first, that whenever a scrophulous tumour is capable of being dispersed, such an effect may in general be expected from the use of this application; secondly, that when the tumour cannot be dispersed, the use of the liniment serves to promote suppuration; and thirdly, that in those inveterate swellings, or species of scirrhus, which neither disperse nor come to suppuration, a long-continued use of it has been found to lessen the bulk of the tumour to a considerable degree, so as to leave only, as it were, a very small nucleus.

Ten cases are related in which this application was tried, but in the greater number of these, as the author very candidly informs us, internal remedies were occasionally administered during its use.

The subject of the first case was a soldier, nineteen years old, who had large glandular swellings in the neck and under the lower jaw.

In this case the use of the liniment was begun on the 9th of July.

On the 17th the surface of the tumour was inflamed and covered with vesicles, which made it necessary to suspend the use of the liniment

till the 21st, when it was again had recourse to. The swellings had now somewhat diminished; but on the 9th of August fresh vesicles appeared, and the use of the liniment was obliged to be again suspended till the 18th.

At this period of the case the swellings were diminished to half their former bulk. The use of the liniment was continued without interruption from the 18th of August till the 13th of September, when it was again necessarily suspended, during six days, on account of the appearance of fresh vesicles.

On the 30th of September the swellings were entirely dispersed, and the patient was discharged cured.

The internal remedies given in this case were, a purgative medicine, composed of jalap and cream of tartar, at the beginning of the treatment; and afterwards a decoction of the roots of bardana and polypodium, with pills composed of soap, gum ammoniac, and rhubarb.

The second patient was a soldier, aged twenty-three years, who was admitted under our author's care on the 20th of June, 1786, with a swelling of the submaxillary glands of the right side as large as a hen's egg, and several
other

other considerable swellings of the glands of the neck on the same side.

The use of the liniment was begun in this case on the 9th of July, and on the 14th the swellings were evidently beginning to lessen and to become softer, so that by the end of the month they were reduced to half their former size.

The use of the liniment was diligently continued during all this time, excepting, that in order to prevent vesications, it was sometimes omitted, or more sparingly applied; as the state of the skin, from the greater or less degree of redness, seemed to require.

Before the end of August all the swellings were dispersed except two which were still large though of a softer consistence, and these were entirely removed about the middle of September, on the 23d of which month the patient was discharged cured.

The same internal remedies were given in this as in the first case.

The third patient was a soldier, aged twenty years, who had a large swelling of the sub-maxillary gland.

He began the use of the liniment on the 23d of January 1787. The tumour was well rubbed

rubbed with it and a pledgit previously moistened with it was also applied to the part, and renewed twice a day; care being taken, however, to watch the state of the skin, and to omit the liniment, or to lessen the quantity of it, as occasion required.

In the space of a month, without any assistance from internal remedies the tumour was entirely dispersed, and on the 25th of February the patient was discharged cured.

The subject of the fourth case was a young prince, fifteen years old, who had a large scrophulous swelling of the glands of the neck under his right ear, of five years standing, which deformed his whole face. The surface of the skin was not discoloured, and the tumour itself was indolent and moveable.

In this case there was also an enlargement of the thyroid gland.

The tumours were rubbed gently every night for a quarter of an hour with the liniment, and some of it was applied to them on pledgits and kept on all night. When it excited vesication, the use of it, as in the former cases, was occasionally suspended. In this manner the treatment was continued during three months, at the end of which time we are told the swelling

of the glands under the ear was almost entirely dispersed, and that of the thyroid gland was much lessened.

In the fifth case, as in that last related, a tumour of the parotid and submaxillary glands was only partially dispersed.

In the sixth, which was also a case of glandular swelling of the neck, the tumour suppurated.

In the seventh, which was a swelling of the right parotid and submaxillary glands, of three years standing, the use of the liniment was persevered in during the space of five months, but at the end of that time although the swelling of the parotid gland is said to have been almost entirely dispersed, the submaxillary glands were still large and indurated.

In the eighth case the success of the liniment was also incomplete; a large serophulous swelling of the parotid and submaxillary glands having been only partially lessened by its application.

The subject of the ninth case was a soldier, aged twenty-five years, who had a white swelling of his left knee, which had been coming on slowly about two years, but in which there was as yet no appearance of fluctuation. Different topical applications were tried, and among others

others the Hungarian remedy *, composed of gum ammoniac and vinegar. By means of this last the tumour seemed to be somewhat diminished, but an intolerable itching made it necessary to suspend its use on the eighteenth day of the treatment. Recourse was now had to the liniment three or four times a day, and in about six weeks, without the assistance of any other internal remedy than a single purgative medicine the swelling was removed, and the patient, at the end of two months, was dismissed cured.

In another patient, a man aged thirty five years, who had a similar complaint, which had also been slowly coming on, a cure was effected by the same means in a still shorter time; for at the end of five days the tumour began sensibly to diminish, and before another week had elapsed he was almost entirely cured: this man took a mercurial purge twice during the treatment.

Roncalli, as we have seen, directs the liniment to be used only twice a day; but we find our author sometimes applying it more frequently; though he acknowledges that by so doing the cure is not always accelerated; its

* For an account of this remedy see the first volume of the London Medical Journal, page 194.

operation on the skin when it is often repeated, rendering it necessary to suspend its use from time to time, so that its effects in this respect will, of course, require to be particularly attended to.

XV. *An Account of the Tabasheer. In a Letter from Patrick Ruffell, M. D. F. R. S. to Sir Joseph Banks, Bart. P. R. S.—Vide Philosophical Transactions of the Royal Society of London. Vol. LXXX. for the Year 1790. Part. II. 4to. London, 1791.*

THE drug, which is the subject of the paper before us, has long been a medicine of high repute in the East, and is mentioned by all the Arabian Medical writers, as an important article of their materia medica.

To the Arabs and Turks it is known under the name of Tabasheer only; and under that name also it is mentioned in the writings of the Arabian physicians.

In the Gentoo language it is called *Vedroopaloo*, Bamboo milk; in the Malabar, *Mungei Upoo*, salt of Bamboo; and in the Warriar, *Vedroo Carpooram*, Bamboo Camphor.

Our author observes, that Garcias ab Horto long ago pointed out a dangerous error, common to the old translators of the Arabian writers, respecting this drug; Tabasheer, in the Latin versions of Rhazis and Avicenna, being constantly rendered *spodium*, and this interpretation having been adopted by most of the subsequent translators of other Arabian medical writers.

The late Mr. Channing, when engaged in the translation of Rhazis on the small-pox, applied, it seems, to our author, then in Syria, for such information as he might be able to collect on the subject of Tabasheer at Aleppo. Dr. Russell, accordingly transmitted to him various specimens of the drug, together with several extracts relative to it, from books found in the Aleppo libraries; but he is now convinced, he tells us, that much of the drug commonly vended in Turkey is fictitious or adulterated.

The Arabian medical writers generally agree in supposing the Tabasheer to be a production of the Indian reed; more especially of such as have suffered from fire, kindled by the friction of the reeds one against the other, an accident that is said to happen frequently in the dry season.

Our

Our author has been assured, he tells us, by several mountaineers, with whom he has conversed on the subject, that the bamboo is not the only tree subject to accidental ignition by friction; but these people added that they never looked for Tabasheer in the half-burnt fragments of the bamboo, though they doubted not it might sometimes be found there as well as in others.

Dr. Russell is convinced that the genuine Tabasheer is a production of the *Arundo Bambos* LINN. the *Ily* of the Hortus Malabaricus, and the *Arundo Indica arborea maxima, cortice spinoso*, of Herman; but he thinks it no less certain that fire is not a necessary agent in its production.

He observes that the bamboo, in which the Tabasheer is found, is vulgarly called the Female Bamboo, and is distinguished by the largeness of its cavity from the male. They are even said, it seems, to be separate trees; but this fact he has not been able to ascertain.

Of the seven pieces of bamboo which accompanied the paper before us, four, we are told, were from the mountains near Vellore, and three from a spot distant about twenty miles from Vizagapatam, the place from which the author dates * his letter. The former were perfectly

* Nov. 26, 1788.

green on their arrival at Madras ; and the others were still so when they came to his hands. These, he observes, were all selected on a conjecture of their containing Tabasheer, from a certain rattling perceived upon shaking the bamboo, as if small stones were contained in the cavity. This, by the natives, is considered as an indication of Tabasheer being contained in one or more joints of the bamboo, and, it seems, they are seldom disappointed ; but it does not always follow that there is no Tabasheer where a rattling is not perceptible ; for upon splitting a number of reeds, it was sometimes remarked, that where the quantity of the drug was inconsiderable, it was found adhering so closely to the sides of the cavity, as to prevent any rattling from being perceived upon shaking. In general, however, our author has found the rule of the natives, for choosing the bamboo, a good one.

On examining one of the bamboos, consisting of six joints, from Vellore, Dr. Russell found Tabasheer only in two of the joints, and in these the quantity was various, amounting in the whole to about twenty-seven grains.

The quality also, he observes, was various. The particles reckoned of the first quality, and
which

which did not exceed four grains in weight, were of a bluish white colour, resembling small fragments of shells. They were harder than the others; and when rubbed between the fingers easily crumbled into a gritty powder, which had a slight saline testaceous taste. The rest were of a cineritious colour, rough on the surface, and more friable; and intermixed with these were some larger, light, spongy, particles, somewhat resembling pumice stones. Dr. Russell thinks it probable, that the Arabs, from these appearances of the drug, were led into the opinion already mentioned of its production.

The two middle joints, he observes, were of a pure white colour within, and lined with a thin film, and it was in these chiefly the Tabasheer was found. The others, particularly the two upper joints, were discoloured within, and in some parts of the cavity was found a blackish substance in grains, or in powder, adhering to the sides, the film being there obliterated.

Thirty-seven green bamboos, brought from the hills fifty miles distant from Vizagapatam, being carefully split and examined, the result we are told, was as follows.

In nine out of the thirty-seven there were no vestiges of Tabasheer. In twenty-eight some

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were

were found in one, two, or three joints of each; but never in more than three joints of the same bamboo. The quantity varied, but in all was inconsiderable; and the empty joints were sometimes contiguous, sometimes interrupted, indifferently.

Dr. Russell observes that the whiter, smooth, harder particles, when not loose together with the others in the cavity, were mostly found adhering to the septum that divides the joints, and to the sides contiguous; but never to the sides about the middle of the joints; and that instead of being chiefly found at the lower extremity of the joint, as might be expected from the juice settling there, they were found adherent indifferently to either extremity, and sometimes to both. In this situation they formed a smooth lining, which usually was cracked in several places, and might easily be detached with a blunt knife.

In some joints, the Tabasheer was found thus collected at one or both extremities only, and in such no rattling was perceived upon shaking the bamboo; but in general, we are told, while some adhered to the extremities of the joint, other detached pieces were intermixed with the coarser loose particles in the cavity.

The

The quantity found in each bamboo is said to have been very inconsiderable; the produce of the whole twenty-eight reeds, from five to seven feet long, not having much exceeded two drachms. The author therefore thinks it very probable that the Tabasheer, though not absolutely confined to certain regions, may be produced in greater abundance in some soils than in others; but that in all regions where the bamboo grows favourably, some proportion of it will be found, however it may vary in quality or quantity.

Rumphius, who very candidly acknowledges that he himself had not had opportunities of making enquiries on this subject, refers his readers to Garcias, who has remarked that the Tabasheer is not found in all bamboos, nor in all the branches indiscriminately; but only in those growing about Bisnagur, Batecala, and one part of the Malabar coast.

With respect to Bisnagur our author has been informed in a letter from one of his medical friends at Hyderabad, “ That though Tabasheer be in great request at Hyderabad, and bears a high price, it is never brought thither from Bisnagur; that some of what is found in the Bazars is brought from the Ar-

“ our pass in Canoul, and some from Emna-
 “ bad, at the distance of about eighty miles to
 “ the N. W.; but that the greatest part comes
 “ from Masulipatam.

“ That there are two sorts sold in the Bazars;
 “ one at the rate of a rupee a drachm; the
 “ other, of inferior quality, at half the price;
 “ but that this is said to be chiefly composed of
 “ burnt teeth and bones.

“ That he was informed by a Persee, who
 “ had been in Bengal, that the Tabasheer was
 “ produced in great quantities at Sylhet, where
 “ it sold by the pound from one rupee to one
 “ and a half, and formed a considerable article
 “ of trade from Bengal to Persia and Arabia.”

Dr. Russell has procured some of the prime sort
 of Tabasheer from Hyderabad, and found it to
 differ materially from his own specimens, not
 only in its superior whiteness, and in its being
 less mixed with impure particles, but also in
 being much harder and heavier, and scarcely in
 any degree friable to the finger.

With respect to the supposed formation of
 Tabasheer from the juice of the recent bamboo
 Dr. Russell first quotes Rumphius, who remarks
 that in Amboina “ *Juniores arundines plerumque*
 “ *que in inferioribus suis nodis semi-repletæ*
 I utcunque

“ utcunque sunt lympida aqua potabili, quæ
 “ hisce in terris sensim evanescit, in aliis vero
 “ regionibus exsiccat in substantiam albam
 “ et calceam quæ *Tabaxir* vocatur.”

Garcias, as our author observes, gives an account somewhat different from this. “ Inter
 “ singula internodia liquor quidam dulcis generatur,
 “ crassus veluti amyllum congestum,
 “ et simili candore, interdum multus, nonnunquam
 “ vero perpauca. Sed non omnes arundines
 “ five rami eum humorem continent. . . .
 “ Hic autem liquor concretus, interdum
 “ nigricans et cinereus invenitur, sed non ideo
 “ improbatur. Nam aut ob nimiam humiditatem,
 “ aut quod diutius ligno inclusus permanferit,
 “ hunc sibi colorem conciliat : non autem ob
 “ arborum incendium, veluti nonnulli putarunt.
 “ Siquidem in multis ramis, quos non contigit
 “ ignis, niger etiam invenitur*.

The existence of this fluid in the bamboo is known by shaking the joint. In a considerable number of bamboos Dr. Russell never found water in more than two joints, and generally not more than two or three drachms in each. The

* Cap. 12.

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largest

largest quantity procured by him at one time was one ounce and a half; very few joints, in proportion, being found to contain any.

The fluid, he observes, was always transparent, but varied in consistence; when thicker it had a whiter colour than usual; when more dilute it differed little to the eye from common water, except that sometimes it had a pale greenish cast. Applied to the tongue it had a slight saline, sub-astringent taste, more or less perceptible in proportion to the consistence of the fluid. After evaporation in the sun, the residuum had a pretty strong saline taste, with less astringency. Some of the fluid, of a darkish colour, thickened in the reed to the consistence of honey; while some, in another part of the reed, was perfectly white and almost dry; both, we are told, had the sharp salt taste, which the Tabasheer itself loses in a great degree by keeping.

From an ounce of fluid of a greenish cast, and slight saline taste, procured from green bamboos, our author obtained by slow evaporation small particles of a whitish colour resembling the inferior sort of Tabasheer.

As a further proof that this substance is formed in the cavity of the bamboo, we learn,
from

from our author's observations, that recent green bamboos, which, upon shaking, appeared to contain water in their cavity, lost this appearance after standing a few days; and that when split, after they had ceased to give any sound by shaking, sometimes no fluid was found in the cavity. The interior thin pellicle, however, was discoloured, as if by recent moisture; and in general some of the fluid, in a mucilaginous state, remained at the lower part of the joint.

In the latter end of October, a green bamboo of five joints was brought to him, which appeared to contain both water and Tabasheer. After three days, the sound of water, upon shaking the reed, could hardly be perceived; and on the fifth day it was intirely imperceptible. Upon splitting the bamboo about half a drachm of the fluid, now thickened into a mucilage, was found at the bottom of the upper joint. The second joint contained some perfect Tabasheer loose in the cavity. The third joint was empty, excepting a few particles of Tabasheer which adhered to the sides near the bottom. The fourth joint, at the bottom, contained above a drachm of a brownish pulpy substance adherent. The last joint, in like manner, con-

tained half a drachm of a substance thicker and harder in consistence, and nearly of the colour of white wax.

This specimen, as the author observes, exhibited at one view the progress of the Tabasheer through its several stages.

In a postscript to this letter, dated Weymouth Street, July 16th, 1790, we are informed that four of the green reeds presented to the society on the night the preceding account was read, having been carefully split, the contents, upon comparing them with the specimens sent from India, then on the table, were found to agree in all respects, as well as with the description of the more recent ones given in this paper. *

XVI.

* In addition to the above account of the Tabasheer, from the Philosophical Transactions, the following extract of a letter, on the same subject, addressed to the Editor of this work, will it is presumed not be unacceptable to the reader; and more especially as it serves to confirm the opinion of Dr. Russell with respect to the formation of this substance. It is written by Mr. J. L. WILLIAMS, an ingenious Surgeon in the service of the Hon. East India Company, in Bengal, and is dated at Benares, October 23, 1790.

‘ I have lately procured from the hills in this neighbourhood, a drug, specimens of which I shall send, by the ships of this season, for your inspection.

‘ It

XVI. *Account of the Nardus Indica, or Spike-nard.* By Gilbert Blane, M. D. F. R. S. —
Vide Philosophical Transactions of the Royal Society of London, Vol. LXXX. for the Year 1790, Part II.

IN some very judicious reflections, with which this account of the *Nardus Indica* is prefaced, Dr. Blane expresses his regret that the records of antiquity afford such imperfect descriptions of natural objects, particularly of those of the vegetable kingdom. Most of the writings of the ancients, he observes, have come down to us either mutilated by the accidents

‘ It is called in Persian, *Tabasheer*; in Hindoo, *Buns-lochun* or salt of the Bamboo. It has a peculiar quality of strongly adhering to the tongue, and is held in great esteem by the natives in a variety of diseases; but I have not yet been able to ascertain its virtues from my own experience.

‘ In a Persian work (the *Tofut ul-Monein* of Mahomed Monein Hosciny) I have found the following observations on this substance, and its supposed medicinal properties, viz.
 “ It (i. e. the *Tabasheer* or *Buns-lochun*) is procured from the cavity of the Indian reed or Bamboo; and it is said that when, from the violence of the winds, fire takes hold of those reed thickets, the *Tabasheer* is formed of the joints of the reeds, which are separated from the ashes thereof. The best kind is of a white colour, and of a roundish shape, having to the palate a small degree of a rough and biting taste. - - - There is a factitious kind made of burnt bones;
 but

dents of time, or corrupted by unfaithful and ignorant transcribers; and he seems to think that the learned works upon professional subjects have been more unfortunate in these respects than works of imagination and general science. But even supposing the works of Theophrastus, Dioscorides, and the other ancient physicians and naturalists, to be extant in their utmost completeness and purity, still their method of describing plants and other natural bodies was so defective, that very few of them, he observes, could now be recognized; for we have not only to contend with the obscurity belong-

“ but this has but a small degree of bitterness to the taste, and
 “ possesses no strength. - - - The Tabasheer will not dissolve
 “ in water. - - - It puts a stop to bilious vomitings and to
 “ the bloody flux. It is also of service in cases of palpitation
 “ of the heart, in faintings, and for strengthening those mem-
 “ bers of the body that are weakened by heat. It is useful also
 “ for the piles, and for acute or burning fevers, and for pustules
 “ in the mouth (thrush); and, given with oxymel is of service
 “ against restlessness, melancholy, and hypochondriacal affec-
 “ tions. - - - The habitual internal use of it is prejudicial to
 “ the virile powers. It is also said to be prejudicial to the lungs.
 “ Its correctives are the gum of the pine and honey. The dose
 “ of it is to the weight of two d’herems or seven masha’s.”

With the specimens of this drug, I shall also send you a
 piece of the Bamboo unopened, with some of the salt, or su-
 gar, in it; from which you will be convinced that the Ta-
 basheer is not formed by the burning of the bamboo, as the
 author just now quoted, and others, have supposed.

ing

ing to a dead language, in so far as the name merely is concerned, but it would be impossible, as he justly remarks, even in a living language, to perpetuate the knowledge of any object in nature, such as a plant, without some description to discriminate it from all others. For want of such description the knowledge contained in the writings of the ancient naturalists could, he thinks, be of use only to their contemporaries and countrymen, who were already acquainted with the objects of it, but could afford no certain information to the ignorant in distant countries and future ages. Of all the ancient medicines, he observes, there is perhaps none but opium of which the identity can be unquestionably ascertained; of most of them little more being said than merely giving their names: so that the fruits of the ingenuity and labour of one age have, in a great measure, in consequence of this ambiguity, been lost to another. Posterity will, therefore, he adds, be greatly indebted to those industrious naturalists of the present times, who are carrying the description of nature to an unexampled height of improvement.

Dr. Blane has been led, he tells us, to his reflections on this subject by an account sent to him,

him, some time ago, by his brother in India, of the Spikenard, or *Nardus Indica*, a name familiar in the works of the ancient physicians, naturalists, and poets; but the identity of which has not hitherto been satisfactorily ascertained. He says, in a letter dated Lucknow, December, 1786, that “travelling with the Nabob
 “Visier, upon one of his hunting excursions,
 “towards the northern mountains, I was sur-
 “prised one day, after crossing the river Rapti,
 “about twenty miles from the foot of the hills,
 “to perceive the air perfumed with an aroma-
 “tic smell; and, upon asking the cause, I was
 “told it proceeded from the roots of the grass
 “that were bruised or trodden out of the ground
 “by the feet of the elephants and horses of the
 “Nabob’s retinuc. The country was wild and
 “uncultivated, and this was the common grass
 “which covered the surface of it, growing in
 “large tufts close to each other, very rank,
 “and in general from three to four feet in
 “length. As it was the winter season, there
 “was none of it in flower. Indeed the greatest
 “part of it had been burnt down on the road
 “we went, in order that it might be no impe-
 “diment to the Nabob’s encampments.

“I col-

“ I collected a quantity of the roots to be
 “ dried for use, and carefully dug up some of
 “ it, which I sent to be planted in my garden
 “ at Lucknow. It there throve exceedingly,
 “ and in the rainy season it shot up spikes about
 “ six feet high. Accompanying this I send
 “ you a drawing of the plant in flower, and of
 “ the dried roots, in which the natural appearance is tolerably preserved.

“ It is called by the natives *Terankus*, which
 “ means literally, in the Hindoo language,
 “ fever-restrainer, from the virtues they attribute to it in that disease. They infuse about
 “ a drachm of it in half a pint of hot water,
 “ with a small quantity of black pepper.
 “ This infusion serves for one dose, and is repeated three times a day. It is esteemed a
 “ powerful medicine in all kinds of fevers,
 “ whether continued or intermittent. I have
 “ not made any trial of it myself; but shall
 “ certainly take the first opportunity of doing
 “ so.

“ The whole plant has a strong aromatic
 “ odour; but both the smell and the virtues
 “ reside principally in the husky roots, which
 “ in chewing have a bitter, warm, pungent
 “ taste, accompanied with some degree of that
 “ kind

“ kind of glow in the mouth which cardamoms occasion.”

Besides the drawing, a dried specimen, we are told, has been sent, which was in such good preservation as to enable Sir Joseph Banks, P. R. S. to ascertain it by the botanical characters to be a species of *Andropogon*, different from any plant that has usually been imported under the name of *Nardus*, and different from any of that genus hitherto described in botanical systems.

Our author is of opinion, however, that there is great reason to suppose it to be the true *Nardus Indica* of the ancients; for first the circumstance, in the account above recited, of its being discovered in an unfrequented country from the odour it exhaled by being trod upon by the elephants and horses, corresponds, he observes, in a striking manner, with an occurrence related by Arrian, in his History of the Expedition of Alexander the Great into India. It is there mentioned, lib. vi. cap. 22. that during his march through the deserts of Gadrosia the air was perfumed by the Spike-nard, which was trampled under foot by the army. Secondly, though the accounts of the ancients concerning this plant are obscure and defective,

defective, it is evident, he thinks, that it was a plant of the order of *gramina*, as the term *arista*, so often applied to it, was appropriated by them to the fructification of grains and grasses. The term *spica*, he farther observes, is applied to plants of the natural order *verticillatæ*, in which there are many species of fragrant plants, and the lavender, which being an indigenous one, affording a grateful perfume, was called *Nardus Italica* by the Romans; but we never find the term *arista* applied to these. The poets, as well as the naturalists, constantly apply this term to the true *Nardus*. In proof of this our author refers to Statius, who calls the Spikenard *odoratæ aristæ*; to Ovid, who, in mentioning it as one of the materials of the phoenix's nest, calls it *Nardi levis arista*; and to a poem on the same subject, ascribed to Lactantius, where the epithet *pubentis* in the expression of *his addit teneras Nardi pubentis aristas*, seems even to point out that it belonged to the genus *andropogon*, a name given to it by Linnæus from this circumstance. Galen, it seems, says, that though there are various sorts of *Nardus*, the term *Ναρδο-σαχυσ*, or Spikenard, should be applied only to the *Nardus Indica*. It would appear, our author observes,

that

that the *Nardus Celtica* was a plant of a different habit, and is supposed to be a species of valeriana. He is aware that Pliny's description of the *Nardus Indica* does not correspond with the specimen which is the subject of the present account, for he says it is *frutex radice pingui et crassa*, whereas this has small fibrous roots. But as Italy is very remote from the native country of this plant, Dr. Blane thinks it reasonable to suppose, that others, more easily procurable, used to be substituted for it; and the more so, as, according to the author last mentioned, there were nine different plants by which it could be imitated and adulterated. Our author finds a *Nardus Assyria* mentioned by Horace, and a *Nardus Syriaca* by Dioscorides, as a species different from the *Indica*; and both Dioscorides and Galen, he adds, by way of fixing more precisely the country from whence it comes, call it also *Nardus Gangites*. Thirdly, Garcias ab Horto, the only writer perhaps, Dr. Blane remarks, who appears to have spoken of it in its recent state, from his own observations, has given a figure of the roots, or rather the lower part of the stalks, which corresponds with our author's specimen. Fourthly, the sensible qualities of this specimen are superior,

we

we are told, to what commonly passes for it in the shops, being possessed both of more fragrancy and pungency, which seems to account for the preference given to it by the ancients.

It has been a subject of inquiry with Matthioli, whether the roots or stalks of this plant were the parts most esteemed by the ancients. The roots of Dr. Blane's specimen, it seems, are very small, and possess sensible qualities inferior to the rest of the plant; yet it is mentioned, in the account above recited, that the virtues reside principally in the *husky roots*. It is evident, he observes, that by the husky roots must be meant the lower parts of the stalks and leaves where they unite to the roots; and he thinks it probable that to a slight inaccuracy of this kind is owing the ambiguity on this point that occurs in the ancient accounts.

With regard to the virtues of this plant, Dr. Blane observes, that it was highly valued anciently as an article of luxury as well as a medicine. He finds the *unguentum nardinum* spoken of as a favourite perfume at the ancient baths and feasts; and he learns from a passage in Horace, that it was so valuable, that as much of it as could be contained in a small box of precious stone was considered as an equivalent

for a large vessel of wine, and a handsome quota for a guest to contribute at an entertainment, according to the custom of antiquity :

—— *Nardo vinum merebere*

Nardi parvus onyx eliciet cadum.

Its sensible qualities, we are told, do not depend on a principle so volatile as essential oil ; and this, our author thinks, would be a great recommendation of it to the ancients, as its virtues would thereby be more durable, and they were not acquainted with the method of collecting essential oils, being ignorant of the art of distillation. He finds the fragrance and aromatic warmth of the Nardus to depend on a fixed principle, like that of cardamoms, ginger, and some other spices. He has tried to extract its virtues by boiling water, by maceration in wine and in proof spirits ; but to all these menstrua it yielded them but sparingly and with difficulty.

As a remedy, both external and internal, it had a high character among the ancients. Dr. Blane finds it one in the list of ingredients in all the antidotes, from those of Hippocrates, as given on the authority of Myrepsus and Nicolaus Alexandrinus, to the officinals which have kept their ground till modern times under the

names of Mithridate and Venice Treacle. He observes that it is recommended by Galen and Alexander Trallian in the dropfy and gravel ; that Celsus and Galen employed it both externally and internally in pains of the stomach and bowels ; and that the latter of these physicians having been called to attend Marcus Aurelius, when that Emperor was severely afflicted with an acute complaint in the bowels, the first remedy he applied was warm oleum nardinum on wool to the stomach.

It appears that the natives of India consider it as an efficacious remedy in fevers ; and Dr. Blane observes, that its sensible qualities promise virtues similar to those of other simples now in use among us in such cases. Besides a strong aromatic flavour, it possesses, we are told, a pungency to the taste little inferior to the serpentaria, and much more considerable than the contrayerva. Our author finds it mentioned in a work attributed to Galen, that a medicine, composed of this and some other aromatics, was found useful in long-protracted fevers, which are the cases, he observes, in which medicines of this class are employed in modern practice.

The paper is accompanied with an engraved figure of the plant, for which we must refer our readers to the work itself.

XVII. *An Account of a Child with a double Head.*
In a Letter from Everard Home, Esq. F. R. S.
to John Hunter, Esq. F. R. S. — Vide Philo-
sophical Transactions of the Royal Society of
London, Vol. LXXX. for the Year 1790,
 Part II.

THE species of *lusus naturæ*, which is the subject of the curious and interesting paper before us, is so extraordinary and unaccountable, that, although the facts are sufficiently established by the testimonies of the most respectable witnesses, the author would still, as he very candidly assures us, have been diffident in bringing them before the Royal Society, had he not been enabled at the same time to produce the double skull itself, in which the appearances illustrate so clearly the different parts of the history, that it must be rendered perfectly satisfactory to the minds of the most incredulous.

The

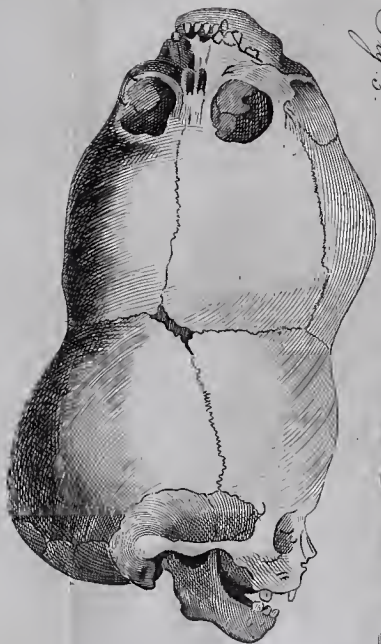
Fig. 1.



Fig. 2.



Fig. 3.



The following account of the child, when six months old, he was favoured with by Sir Joseph Banks, who, it seems, from the handwriting and other circumstances, believes that it was written by the late Colonel Pierce. Mr. Home has, however, he tells us, been less solicitous to ascertain the author, as the observations contained in this account agree so entirely with the remarks that were afterwards made, and with the appearances of the skull, that they require no name being annexed to them in confirmation of their having been made with accuracy and fidelity.

“ The child was born in May, 1783, of
 “ poor parents; the mother was thirty years
 “ old, and named Nooki; the father was called
 “ Hännai, a farmer at Mandalgent, near Bar-
 “ dawan, in Bengal, and aged thirty-five.

“ At the time of the child’s birth, the wo-
 “ man who acted as midwife, terrified at the
 “ strange appearance of the double head, en-
 “ deavoured to destroy the infant by throwing
 “ it upon the fire, where it lay a sufficient time,
 “ before it was removed, to have one of the
 “ eyes and ears considerably burnt.

“ The body of the child was naturally form-
 “ ed, but the head appeared double, there be-

“ ing, besides the proper head of the child,
 “ another of the same size, and to appearance
 “ almost equally perfect, attached to its upper
 “ part. This upper head was inverted, so that
 “ they seemed to be two separate heads united
 “ together by a firm adhesion between their
 “ crowns, but without any indentation at their
 “ union, there being a smooth continued sur-
 “ face from the one to the other. The face of
 “ the upper head was not over that of the
 “ lower, but had an oblique position, the cen-
 “ ter of it being immediately above the right
 “ eye.

“ When the child was six months old, both
 “ of the heads were covered with black hair
 “ in nearly the same quantity. At this period
 “ the skulls seemed to have been completely
 “ ossified, except a small space between the ossa
 “ frontis of the upper one, like a fontanelle.

“ *Observations on the superior or inverted Head.*

“ No pulsation could be felt in the situation
 “ of the temporal arteries ; but the superficial
 “ veins were very evident.

“ The neck was about two inches long, and
 “ the upper part of it terminated in a rounded
 “ soft tumor, like a small peach.

“ One

“ One of the eyes had been considerably
 “ hurt by the fire, but the other appeared perfect,
 “ having its full quantity of motion;
 “ but the eyelids were not thrown into action
 “ by any thing suddenly approaching the eye;
 “ nor was the iris at those times in the least affected,
 “ but, when suddenly exposed to a
 “ strong light, it contracted, although not so
 “ much as it usually does. The eyes did not
 “ correspond in their motions with those of
 “ the lower head; but appeared often to be
 “ open when the child was asleep, and shut
 “ when it was awake.

“ The external ears were very imperfect,
 “ being only loose folds of skin, and one of
 “ them mutilated by having been burnt. There
 “ did not appear to be any passage leading into
 “ the bone which contains the organ of hearing.

“ The lower jaw was rather smaller than it
 “ naturally should be, but was capable of motion.
 “ The tongue was small, flat, and adhered firmly
 “ to the lower jaw, except for about half an inch
 “ at the tip, which was loose. The gums in both
 “ jaws had the natural appearance; but no teeth
 “ were to be seen either in this head or the other.

“ The internal surfaces of the nose and
 “ mouth were lubricated by the natural secre-
 “ tions, a considerable quantity of mucus and
 “ saliva being occasionally discharged from
 “ them.

“ The muscles of the face were evidently
 “ possessed of powers of action, and the whole
 “ head had a good deal of sensibility, since
 “ violence to the skin produced the distortion
 “ expressive of crying, and thrusting the fin-
 “ ger into the mouth made it shew strong
 “ marks of pain. When the mother’s nipple
 “ was applied to the mouth, the lips attempted
 “ to suck.

“ The natural head had nothing uncommon
 “ in its appearance ; the eyes were attentive to
 “ objects, and its mouth sucked the breast vi-
 “ gorously. Its body was emaciated.

“ The parents of the child were poor, and
 “ carried it about the streets of Calcutta as a
 “ curiosity to be seen for money ; and to pre-
 “ vent its being exposed to the populace, they
 “ kept it constantly covered up, which was
 “ considered as the cause of its being emaciated
 “ and unhealthy.”

The attention of the curious could not fail
 to be attracted by so uncommon a species of
 deformity ;

deformity ; and Mr. Stark, who was then resident in Bengal, paid, we are told, particular attention to the appearances of the different parts of the double head, and endeavoured to ascertain the mode in which the two skulls were united, as well as to discover the sympathies which existed between the two brains. This gentleman, on his return to England, finding that Mr. Home was in possession of the skull, and proposed drawing up an account of the child, very obligingly favoured him with the result of his observations, and at the same time permitted him to have a sketch taken from a very exact painting, made under his own inspection, from the child while alive, by Mr. Smith, a portrait painter then in India. From this figure *, and two others †, which accompany

* See Plate II. Fig. 1.

† See Plate II. Fig. 2 and 3. In fig. 2 the double head is represented exactly half the natural size. One of the eyes of the upper face appears smaller or more contracted than the other; this is said to be in consequence of the injury it received when the child was thrown upon the fire. In this figure the superficial veins upon the forehead of the upper head are very distinctly seen.—Fig. 3 is an exact representation of the double skull, which is now in Mr. Hunter's collection, upon the same scale as fig. 2. Mr. Home observes of it, that it shows

pany Mr. Home's account, and which we have taken the liberty to copy for the gratification of our readers, a very accurate idea is given of the child's appearance.

At the time Mr. Stark saw the child it must have been, our author thinks, nearly two years old *, as it was some months before its death, which he has every reason to believe happened in the year 1785. At this period the appearances, we are informed, differed in many respects from those taken notice of when the child was only six months old.

The burnt ear had so much recovered itself as only to have lost about one fourth part of the loose pendulous flap. The openings leading from the external ear appeared as distinct as in those of the other head. The skin surrounding the injured eye, which was on the same side

shows the curious manner in which the two skulls are united together, and the number of teeth formed before the child's death ; which circumstance, he adds, ascertains with tolerable accuracy its age.

* Mr. Home remarks, in a note, that the dentes molares, which usually appear at twenty months or two years of age, were through the gums ; and there was no reason, he adds, to expect them very early in this child.

with

with the mutilated ear, was in a slight degree affected, and the external canthus much contracted, but the eye itself was perfect.

The eyelids of the superior head were never completely shut, remaining a little open, even when the child was asleep, and the eyeballs moved at random. When the child was roused, the eyes of both heads moved at the same time; but those of the superior head did not appear to be directed to the same object, but wandered in different directions. The tears flowed from the eyes of the superior head almost constantly, but never from the eyes of the other, except when crying.

The termination of the upper neck was very irregular, a good deal resembling the cicatrix of an old sore.

The superior head seemed to sympathize with the child in its natural actions. When the child cried, the features of this head were affected in a similar manner, and the tears flowed plentifully. When it sucked the mother, satisfaction was expressed by the mouth of the superior head, and the saliva flowed more copiously than at any other time; for it always flowed a little from it. When the child smiled, the features of the superior

perior head sympathised in that action. When the skin of the superior head was pinched, the child seemed to feel little or no pain, at least not in the same proportion as was felt from a similar violence being committed on its own head or body.

When the child was about two years old, and in perfect health, the mother, we are told, went out to fetch some water, and upon her return, found it dead, from the bite of a *Cobra de Capelo*. The body was buried near the banks of the Boopnorain river, but was afterwards dug up by Mr. Dent, the honourable East India Company's Agent for salt at Tumloch, on whose grounds the parents of the child then lived. By Mr. Dent it was given to Captain Buchanan, late Commander of the Ranger Packet, in the service of the honourable the East India Company, who, being struck with the uncommon appearance of the double scull, had expressed a wish that he might be permitted to bring it to Europe and present it to our author, to whom he well knew it would be highly acceptable. This request, we are informed, was no sooner communicated to Mr. Dent, than it was complied with; and Mr. Home observes that he should do both these gentlemen,

gentlemen injustice, were he not to attribute their readiness upon the present occasion to oblige him, in a great measure to their knowing that the double skull would be deposited in Mr. Hunter's Collection, which must now be considered more as a national and public repository than a private cabinet.

Mr. Home remarks that the two skulls which compose this monstrous head appear to be nearly of the same size, and equally complete in their ossification, except a small space at the upper edge of the ossa frontis of the superior skull, similar to a fontanelle. The mode, he tells us, in which the two were united is curious, as no portion of bone is either added or diminished for that purpose; but the frontal and parietal bones of each skull, instead of being bent inwards, so as to form the top of the head, are continued on; and, from the oblique position of the two heads, the bones of the one pass a little way into the natural futures of the other, forming a zig-zag line, or circular future, uniting them together.

The two skulls are said to be almost equally perfect at their union; but the superior skull, as it recedes from the other, is described as becoming more imperfect and de-

ficient in many of its parts. Mr. Home observes, for instance, that the meatus auditorius in the temporal bone is altogether wanting; and that the basis of the skull is imperfect in several respects, particularly in such parts as are to connect the skull with a body, the foramen magnum occipitale being only a small irregular hole, very insufficient to give passage to a medulla spinalis, and there being no condyles with articulating surfaces round its margin, as there were no vertebræ of the neck to be attached to it. He farther remarks that the foramen lacerum in the basis of the cranium is only to be seen on one side, and even there is too small for the jugular vein to have passed through; that the ossa palati are deficient at their posterior part; that the lower jaw is too small for the upper; and that the condyle and coronoid process of one side are wholly wanting.

In most other respects, the two skulls, we are told, are alike; the number of teeth in both being the same, viz. sixteen.

From an examination of the internal structure of the double skull, the two brains, our author observes, have certainly been inclosed in one bony case, there being no septum of bone be-

tween

tween them. How far they were intirely distinct, and surrounded by their proper membranes cannot now be ascertained; but from the sympathies which were taken notice of by Mr. Stark, between the two heads, more particularly those of the superior with the lower, or more perfect, Mr. Home is inclined to believe, that there was a more intimate connexion between them than simply by means of nerves, and therefore that the substance of the brains was continued into one another.

Had the child, he observes, lived to a more advanced age, and given men of observation opportunities of attending to the effects of this double brain, its influence upon the intellectual principle must have afforded a curious and useful source of inquiry; but unfortunately, he adds, the child only lived long enough to complete the ossification of the skull so as to retain its shape, by which means he has been enabled to ascertain and register the fact, without having enjoyed the satisfaction that would have resulted from an examination of the brain itself, and a more mature investigation of the effects it would have produced.

XVIII. *Case of a Gun-shot Wound in the Mouth ; in which, on account of impeded Deglutition, a flexible Catheter was introduced through the Nose into the Oesophagus, and suffered to remain there during the Space of a Month. By M. Manoury, Surgeon of the Hotel Dieu at Paris. Vide Journal de Chirurgie, par M. Default, Chirurgien en Chef de L'Hotel Dieu de Paris. Tome I. 8vo. Paris, 1791.*

THIS very curious case, though described by M. Manoury, appears to have been chiefly under the direction of M. Default. It relates to a young man, who on the 18th of December, 1789, about midnight, discharged a loaded pistol into his mouth. M. Default, who saw him within an hour after the accident, found him bleeding profusely at the mouth, with his face already considerably swelled ; the inside of his mouth blackened by the powder ; the right half of his tongue much torn and burnt ; his lower jaw fractured on the right side ; and a loss of substance in the back part of the bony palate, on the same side, large enough to admit his thumb ; together with a laceration of the velum pendulum palati.

In

In order to ascertain the extent of the wound M. Default, we are told, introduced a female catheter through the opening in the palate. From this examination there did not seem to be any communication with the cavity of the skull; and that the brain was not injured appeared still more clearly from the rational state of the patient; but M. Default was unable to discover either of the three balls, with which the patient by signs made him to understand the pistol had been loaded. They were not to be found in the blood which had been discharged, and the patient was certain that he had not swallowed them; it was therefore thought likely that they might be concealed in the cells of the os ethmoides or in the sphenoidal sinuses. With a view to suppress the hæmorrhage the flexible silver wire of a catheter was introduced through the right nostril into the fauces, and its extremity, by the assistance of a finger, was brought out at the mouth; which was an operation of some difficulty on account of the swelling of the parts. To this extremity were tied the ends of two pieces, or ribands, as the author calls them, of waxed thread, between which was fastened a doffel of lint, large enough to fill that part of the pharynx which corresponds with

the posterior nostrils. By withdrawing the wire and threads through the nose, the doffil was carried into the fauces, and, by the assistance of a finger, applied against the posterior opening of the nostrils. The two portions of thread which came out through the nose being then separated, one of them was pulled towards the septum narium and the other to the opposite side. The nostril was now filled with small doffils of lint, over the last of which, larger than the rest, were tied the two ends of the waxed threads.

After having thus put a stop to the hæmorrhage, M. Default attempted to reduce the two fragments of the lower jaw, one of which had been forced more than half an inch above the other; but the swelling of the soft parts rendered this attempt fruitless. He therefore, we are told, contented himself with applying to the cheeks, chin, and upper part of the neck, compresses moistened with vegeto-mineral water. But notwithstanding the frequent renewal of this application, and the use of a suitable gargle, the tumefaction went on increasing, so that the next day deglutition was become extremely painful and difficult, and on the second was altogether impossible.

In this alarming state of the case, M. Default

was induced to remove the dossils of lint from the nostrils and fauces, as they were no longer necessary, and to introduce through the left nostril a large catheter made of elastic gum, and properly curved, which he had before employed with success, in a similar manner. Having carried this as far as the middle and posterior part of the pharynx, he with one hand drew out the wire of the catheter, while with the other he supported and fixed the catheter itself, which he endeavoured to introduce into the œsophagus, instead of which it passed, it seems, at first into the larynx. This was immediately known by a kind of guggling noise, and by the agitation of the flame of a candle brought close to the mouth of the catheter. Such a deviation, the author observes, in an attempt to introduce a flexible catheter in this manner into the œsophagus is frequent, as the surgeon seldom succeeds at once in getting it into that channel. The inconvenience, however, arising from such a deviation, is, he adds, not great; it being easy to discover it, not by the acute pain and convulsive cough, as hath been supposed (for in general neither of these, he remarks, takes place, and the patients appear to be but little incommoded by it) but by the trial with the

flame of a candle, in the way just now described.

M. Default having instantly withdrawn the catheter from the larynx, made a fresh attempt to get it into the œsophagus and succeeded. It was secured by means of two waxed threads fixed to its outer extremity, and twisted round a pin in each side of the patient's night cap. About four ounces of broth were now injected through the catheter into the stomach, and an attendant was instructed in the manner of repeating this operation occasionally. In this way, it seems, suitable medicines and nourishment were introduced into the stomach with great facility and without exciting the least sickness or uneasiness. The patient, we are told, was apprized of the necessity of repeating them, not by the usual symptoms of hunger and thirst, but by a peculiar sensation of weakness and gnawing in the epigastric region which ceased as soon as the injection was repeated.

On the third day there was a considerable degree of fever, and the inside of the mouth was filled with small portions of sloughs, which, on the fourth day, when a suppuration began to take place, were more easily detached and brought away by means of a gargle of barley water

water and honey of roses, of which the patient was directed to make frequent use. Hitherto the swelling of the parts had gone on increasing, and was now, we are told, so considerable that the fauces appeared, as it were, entirely closed. It would therefore have been impossible, our author observes, to have got down the least substance either liquid or solid in the usual way of swallowing, and without the assistance of the catheter, which continued to remain in the œsophagus without any inconvenience to the patient.

On the seventh day the swelling appeared to be a little diminished; the fever also was lessened; and the suppuration on the inside of the mouth was considerable, and furnished a copious discharge of a grayish and foetid pus, which rendered a frequent use of the gargl. necessary.

On the fifteenth, the tumefaction of the cheeks and mouth being almost entirely dissipated, M. Desault made a fresh but unsuccessful attempt to reduce the fracture of the lower jaw. The catheter was still kept in the œsophagus, and the patient seemed to mend daily.

From the fifteenth to the twentieth day, nothing remarkable, we are told, occurred. The mouth, at this period, was pretty free from sloughs,

and several parts of it which had been in a state of ulceration were already healed, as was also the velum pendulum palati; but there was still a hole in the roof of the mouth. The catheter appearing to be no longer necessary, was now, it seems, withdrawn, and the patient attempted to swallow a little broth; but the loss of one half of his tongue, the cicatrices on the inside of his mouth and the constriction they occasioned, together with the opening in the bony palate and his having been so long unaccustomed to swallowing, all concurred in rendering deglutition so difficult, that he entreated to have the use of the catheter continued some days longer. It was accordingly again introduced and suffered to remain till the thirtieth day, when it was finally withdrawn.

At first, and for several days after its removal, deglutition was performed, it seems, with difficulty; but by degrees became more easy. The patient's pronunciation likewise, we are told, was for some time difficult and indistinct.

The two fragments of the lower jaw were not yet united. One of them was still, it seems, considerably higher than the other, though not so much so as at first; and their reduction was again attempted, but with as little success as before.

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The patient remained at Paris a month after the removal of the catheter, and at the end of that time went into the country to his relations. The fractured portions of the lower jaw were even then not consolidated, but were reduced nearly to a level with each other, and it was thought likely that by removing one of the dentes molares, which by its projection seemed now to be the chief obstacle to the complete reduction of the fracture, every difficulty with regard to it would gradually give way.

Instead of a hole in the bony palate, there was now, we are told, only a small fissure to be perceived, which there was reason to expect would soon be completely closed. The patient had recovered, in some measure, the sense of taste, and although he still masticated with difficulty, was able to take solid food, and could even chew a crust of bread. He articulated, however, with difficulty, and spoke through his nose, except when he wore spectacles so as to compress his nostrils to a certain degree.

In some reflections on this case M. Manoury points out the great advantages the patient derived from the use of the flexible catheter, which by conveying suitable food and medicines into the stomach, seemed to have been the chief

means of preserving his life. The utility of such an instrument so applied, he observes, is not confined to cases similar to the present, but may be extended to a variety of other diseases, such as tetanus, hydrophobia, spasmodic contraction of the pharynx, paralysis of its muscles or of those of the tongue, and tumours situated along the œsophagus or in its coats, even within the thorax. Nor are the advantages of these catheters, he contends, limited to diseases that prevent deglutition, as they are capable of being employed with success in those which affect the channels of respiration, whenever the obstacle is seated above the bronchia, as, for example, in cases of abscess or ulceration of the inner surface of the larynx, with disease of the cartilages; in certain fistulas of the trachea or larynx; in wounds of those parts, &c. He even goes so far as to query, whether in cases where both respiration and deglutition are impeded at the same time, as in some species of angina, in wounds of the neck where both the larynx and œsophagus are divided, it may not be advisable to introduce a flexible catheter through each nostril, and to pass one into the œsophagus, and the other into the larynx, fixing them to the patient's cap, as in the preceding

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ing case, and taking care to distinguish them by some obvious mark, so that the injection may not by mistake be forced into the lungs instead of the stomach. M. Default, he observes, has as yet made no trial of this method in affections of the larynx, but proposes to have recourse to it in the first favourable case that shall present itself; and he foresees, we are told; nothing that can prevent it from succeeding.

The facility with which these catheters may be introduced into the larynx, the little inconvenience some persons have experienced who have had them in that passage for several minutes, and the effects of canulas which have been worn by patients in the trachea, several days after the operation of bronchotomy, all tend, he thinks, to obviate the objections which may be made to such a mode of treatment on account of the difficulty of executing it, or the supposed impossibility of a patient's supporting such an instrument in a part thought to be so irritable as the larynx.

XIX. *Account of an extraordinary Change, not hitherto described, which, under certain Circumstances, takes place in the human Body after Death.*—Vide *Rapport sur les Exhumations du Cimetiere et de l'Eglise des Saints Innocens; lu dans la Seance de la Société Royale de Medecine tenue au Louvre le 3 Mars, 1789. Par M. Thouret. 4to. Paris, 1790.*

IN this report, relative to the removal of the bodies from the church and church-yard of the Holy Innocents, M. Thouret, who is a very respectable physician at Paris, and already well known to the Public by his writings, gives an account of a very extraordinary change to which the human body, under certain circumstances, is subject after death.

The situation of the burial place in question, in the center of the city of Paris, has for a great length of time pointed it out as a nuisance to the Public. Its supposed unhealthiness occasioned it to be a subject of inquiry so long ago as the year 1557, when two physicians, Fernelius and Houllier, were directed by Government to examine it; and in 1737 a Committee of the Academy of Sciences was appointed

pointed for the same purpose. On both these occasions the removal of it was earnestly recommended; but it does not appear that any steps were taken to remedy the inconvenience complained of till the year 1780, when an order was issued to prevent any more burials in this spot. This regulation, however, M. Thouret observes, which might have been sufficient in the generality of places of this kind, where the bodies, being but thinly interspersed in the earth, are speedily destroyed, was altogether inadequate to the evil in the present instance, the soil being here so saturated with animal matter as to be no longer capable of any action on the more recent bodies accumulated within it.

M. Thouret observes, that since the year 1186 this place has served as a common burial place for the greater part of the city of Paris, and that for a great number of years past from two thousand five hundred to three thousand bodies have been interred in it annually. He has been assured, it seems, that in a somewhat less space of time than thirty years upwards of eighty thousand bodies were interred in it by the last sexton. This immense collection of dead bodies occupied, we are told, a
surface

surface of more than ten thousand square feet. They were accumulated, for the most part, in common graves, or pits, from twenty five to thirty feet deep, each of which was large enough to contain from twelve to fifteen hundred coffins : and as a proof how few bodies were buried in separate graves, we are told that the number of such interments seldom exceeded two hundred annually.

At length, Government having determined to remove this nuisance, the Royal Medical Society were called upon to point out the best mode of doing it ; and our author, who was one of the Committee appointed by the Society for that purpose, and who superintended the whole of the undertaking, now communicates the result of his observations on this subject to the Public. The operations lasted upwards of two years, and during that period, it seems, a layer of earth from eight to ten feet deep was removed from the surface of the burial ground to the extent of twelve thousand square feet, and, besides a great number of separate graves, between forty and fifty of the common receptacles were opened to the depth of eight or ten feet, and some of them to their very bottom,
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and about twenty thousand bodies, buried at different periods, were removed with their coffins.

Amidst a great variety of appearances which so many bodies exhibited, from their having been interred a greater or less space of time, in separate graves or in the common receptacles, there was one extraordinary circumstance which soon struck our author's attention. This was the state of the coffins and bodies in the common pits. The coffins in these were, in general, firm and in good preservation; and the earth that surrounded them was of a deep black colour; but, excepting this blackness which had tinged the coffins externally, they retained their freshness, and within the natural colour of the wood was easily distinguishable. The shrouds were observed to be in the same state of preservation, and the bodies themselves appeared to be undiminished in bulk. Upon removing the shroud the fleshy parts of the bodies seemed to be preserved; the only change that was perceived consisted in their being converted, as it were, into a substance, the whiteness of which was heightened by the blackness of the surrounding soil.

The author tells us that at first sight of this curious phenomenon he was inclined to consider

sider it as the effect of lime spread over these bodies; but upon examining them more attentively he was soon convinced that he was wrong in this supposition; and he found that all the soft parts were converted into a white mass, more or less firm, and already known among the gravediggers by the name of fat; (*gras*.) This mass, which exhibited no appearance of a fibrous texture, felt unctuous or soapy when rubbed between the fingers, and in a dry air grew harder, and even acquired a shining polish and a sort of metallic lustre, but became softer when exposed to a moist air.

In general these masses, the author observes, preserve the entire shape of the limbs. Among the bodies which he found the most completely transformed into this substance, and which form a part of the collection he has made to illustrate the history of this phenomenon, several, he tells us, retain their natural shape, together with the features of the face, the eyes, eyebrows, and eyelids. The transmutation, he observes, is not confined to the surface of the body; but may be traced through every part of the muscles, ligaments, and tendons, and likewise through the different cavities, where all or the greater part of the viscera are found converted

verted into the same substance, which is also to be seen in the cavities of the bones, even in the cells of the diploe. It is found to affect the texture of the cartilages, but the bones themselves, it seems, remain unaltered, as do likewise the hair and nails. There are likewise, we are told, certain colouring principles, such as the bile, the fluid of the bronchial glands, the pigmentum of the choroid, the red particles of the blood, and the fibrous part of the muscles, which remain for a long time distinguishable in the mass that surrounds them.

The parts that have appeared to our author to be the most susceptible of this change have been the adipose and membranous. Some parts, he observes, evidently acquire it much sooner than others, and he has found the blood vessels of different viscera, particularly those of the liver, transformed into this mass, while the surrounding substance of the viscus itself had as yet undergone no such change.

He observes that, in general, the parts preserve their natural configuration in proportion to the quantity of adipose and lymphatic juices they contain, and in proportion to the density of their texture. Thus the brain, the heart, the liver, and some other viscera, it seems,
change

change completely into this substance, and retain their original figure, while of the intestines and the spongy and vesicular texture of the lungs only slight vestiges remain after this change, and in these the fatty substance into which they are converted is of a much thinner consistence than in the other parts.

From a chemical analysis of this substance, for which our author acknowledges himself indebted to M. Fourcroy, it appears to consist of an oily principle combined with volatile alkali so as to form a soap. The oily basis of this ammoniacal soap, separated by acids, is described as a concrete substance, of a grayish yellow colour, and somewhat more fusible than wax; combined with fixed or volatile alkali it forms, we are told, a firm soap.

M. Thouret remarks, that it is not ductile under the fingers like wax, but that it crumbles into small, soft, and unctuous fragments like spermaceti, the substance with which he considers it as having the greatest analogy. Thus he observes that it chrySTALLISES like spermaceti, and dissolves even in a greater proportion than that does in heated alcohol; part of it separating again as the solution cools, in the form of small shining laminae.

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From these data our author is led to attempt a theory of the formation of this substance. He ascribes it to a peculiar modification of the putrid change that bodies undergo in the earth, and thinks that the origin of all the phenomena is to be sought for in the decomposition of water. It has been supposed, he observes, that from a combination of phlogisticated with inflammable air there results, during putrefaction, volatile alkali; and the fixation of a larger proportion of inflammable air, and perhaps also of a certain quantity of dephlogisticated air, may, he thinks, give rise to a fat or oily substance, which, by uniting with the volatile alkali, forms a soap.

M. Thouret observes, that a concretion analogous to this substance is not foreign to the living animal œconomy; that it exists, as is well known, in large masses in the cavities of the brain of the whale; and is distributed by numerous vessels through all the parts of that animal; and that it is also to be found in the bile, where till of late it has been taken for a resin. It has sometimes, he adds, been found extravasated in the liver when dried in the air, as was proved by the late M. Poulletier de la Salle, of Paris, who, having exposed a human

liver to the air for a considerable number of years, found it changed, at length, into a whitish mass, in its appearance not unlike agaric, and which, on exposure to a gentle heat, yielded a substance similar to spermaceti. M. Thouret assures us his experiments have taught him that a substance of the same kind may be extracted in abundance from the brain of man and other animals. May it not, therefore, he asks, be latent in the living body, and intended to answer some purpose in the animal œconomy with which we are as yet unacquainted?

This singular transmutation, he observes, though it is found to affect bodies of both sexes, and of all ages, is subject, however, to some differences which have not escaped the notice of the gravediggers, who have remarked that bodies which are the fattest and most compact pass the soonest into this state; that very dry and lean ones acquire more of the appearance of dry mummies; and that lax and humid ones melt into water.

The transmutation, whatever may be its nature, takes place, we are told, indifferently in different kinds of earth. It likewise appears to be completed in a short space of time. The

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last great pits of the burial place had been closed, it seems, only five years, and from the surface to the bottom all the bodies they contained, a very small number excepted, were found by our author transformed into the substance in question.

In general, however, the manner in which this transmutation, when once begun, goes on and is completed, appears to be not altogether uniform. In the pits where it seemed to be the most completely effected, the greater number of bodies, we are told, were entirely transformed; but, on the other hand, in some the change appeared to be only just beginning to take place, while in others the decomposition was complete. In the small number that afforded no marks of it the bones only remained, and these exhibited the common appearance. Were these, the author asks, the remains of bodies that had passed through this state, and had afterwards been totally destroyed? There was nothing, he observes, in the situation of these last that could explain the difference. They were found at all depths, and close to others in which the change was complete. In general, however, it seems, it was in the bodies at the greatest depth that the change appeared to take place

the soonest, and these also seemed to be the last in which this fatty substance was destroyed. Our author found this fact confirmed by what he saw in two other burial grounds at Paris:

It appears from M. Thouret's observations, that the skin is the part in which this change first begins to take place, and that after this follow the fat, the muscles, and the viscera: In the early stage of the transmutation the texture of the skin, we are told, is still distinguishable, as is also the colour of the fat and of the muscles, and it is not till the fibrous texture of the latter has entirely disappeared that the change can be said to be complete. When this is accomplished, a decomposition begins to take place. This is first observable in the cavities of the body, and as it advances the bones become disunited, the fatty substance is gradually dissolved, and at length there remain only slight appearances of it adhering to the surface of the bones; but in this state it has the consistence and colour of clay, or becomes dry and friable and of a darker colour. M. Thouret supposes this to be the remains of the colouring principle, or of the earthy principle still combined with a little of the fatty substance.

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The brain, according to our author, is the part that is the last destroyed.

As it is to the extrication of aeriform fluids from the dead body during putrefaction, and to the re-action of those fluids on the body itself, that our author thinks we are to ascribe the formation of this substance, so he observes that it is not till the surrounding earth is saturated with these fluids that the change begins to take place. This saturation of the earth he thinks is proved by its black colour. Exposed to the air, it soon, he observes, loses this appearance, and becomes capable of dissolving the fatty substance in question. He has found this substance only in the common pits where the surrounding earth has acquired this black colour; he has never been able to discover any traces of it in single graves; he therefore concludes that an accumulation of animal bodies in large masses is requisite for its formation, and also that these masses must be sufficiently covered with earth to prevent the evaporation of the aeriform fluids that are extricated, because in proportion as these escape, the saturation of the surrounding earth becomes less complete.

But besides the evaporation of these fluids which takes place sooner or later, another cause is mentioned by our author as contributing

very powerfully to the destruction of the bodies thus transformed, and that is the moisture of the soil, which by reason of the soapy nature of the substance in question is found to dissolve it very completely. The state of the earth, in this respect, is, therefore, one of the principal circumstances on which the duration of this substance depends. Our author accordingly observed that in the pits the least exposed to the sun, and which, from their situation in other respects, were most liable to moisture, the bodies were the most speedily decomposed. He has even seen coffins in an inclined position, in one part of which, exposed to the action of moisture, the substance in question was completely dissolved, while in the dry part it had undergone no change.

Of this curious phenomenon, which seems hitherto to have escaped observation, M. Thouret remarks that it adds new facts to the history of the decomposition of animal bodies in the earth, and may be considered as a particular species of mummyfication, which, compared with that which produces the dry and fibrous mummy, shews us in this way a new process of nature. Both these species of mummy, he observes, depend on the action of aeriform fluids.

Thus the destruction of the body takes place if these evaporate; the species of mummy, which is more immediately the subject of this paper, is produced if these fluids when disengaged are reflected on the soft parts of the body or retained in their texture; and, on the other hand, the dry and fibrous mummy is formed whenever these same fluids are not at all or imperfectly disengaged.

On similar principles, he thinks, may be explained the different circumstances observed in the decomposition of bodies in burial grounds, whether in separate or in common graves; those circumstances more especially which may be ascribed to the nature of the soil. In general, he observes, they will depend on the facility with which it absorbs or transmits the different species of air extricated from bodies by putrefaction, and hence, dry sand is, he thinks, the most favorable to the decomposition of bodies. This decomposition will also, he adds, be accelerated by calcareous earths, which are known to be very porous and permeable, and for this reason have been called putrid or septic earths. On the other hand, compact argillaceous earths, he observes, are found to retard this decomposition, as was mentioned by Messieurs Lemery,

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Geoffroy,

Geoffroy, and Hunauld, in their report to the Academy of Sciences in 1738.

These facts, the author farther remarks, serve to show how little foundation there is for the opinion commonly entertained relative to the conversion of the dead body into earth, no such appearance having been observed in any of the coffins that were intire; neither, he adds, is what is usually imagined true that the body is, in general, destroyed by worms, as these are found only near the surface of the earth, or in bodies that have been exposed to the air. His observations have convinced him that human bodies consigned to the earth insensibly exhale and evaporate in volatile principles; and for this reason it is, he thinks, that the soil of burial places does not perceptibly accumulate.

M. Thouret preserves in his collection specimens procured in these researches, and which serve to confirm and illustrate all the facts he has related in the report before us; and he proposes in subsequent papers to describe the different parts of the subject more fully, and to give engravings of the appearance of different parts of the bodies he has examined.

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1. **A** NEW Translation of the Pharmacopœia of the Royal College of Physicians of London, of the Year 1787; with Notes critical and explanatory; Doses of the several Preparations; likewise a Table of the quantities of Opium and Quicksilver in the compound Medicines which contain them; and a List of the new Names, together with Latin and English Indexes. By an Apothecary. 8vo. *Johnson*, London, 1789.

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48. *Sam. Gottl. Vogel*, M. D. Confil. Aulic. Prax. Clin. in Univ. Rostoch. Prof. ord. Manuale Praxeos medicæ, Medicorum illum auspicatorum usui dicatum. Ex editione Germanica recentissima una cum additamentis Auctoris omnibus loco suo suppletis in linguam transtulit Latinam notasque hinc inde adjecit *Joann. Bernard. Keup*, Med. Doctor. Tom. I. 8vo. Stendal, 1790.

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50. Flora Cochinchinensis: sistens plantas in Regno Cochinchina nascentes; quibus accedunt aliæ observatæ in Sinenfi Imperio, Africa Orientali, Indiæque locis variis, omnes dispositæ secundum Systema sexuale Linnæanum, labore ac studio *Joannis de Loureiro*, Regiæ Scientiarum Academiæ Ulyssiponenfis Socii: olim in Cochinchinâ Catholicæ Fidei Præconis: ibique rebus Mathematicis ac physicis in Aulâ Præfecti. Jussu Acad. R. Scient. in lucem edita. Tom. II. 4to. Ulyssipone, 1790.

51. Fauna Etrusca sistens Insecta, quæ in Provinciis Florentina et Pisana præsertim collegis

legit *P. Rossius*. Tom. II. 4to. Livorno, 1790. c. Tab. æneis x.

52. Supplementum Plantarum selectarum, quarum Imagines manu artificiosa doctaque pinxit *Georgius Dionysius Ebret*; occasione haud vulgari in usum publicum collegit D. *Christ. Jacob Trew*; publicavit et illustravit D. *Bened. Christ. Vogel*; in æs incidendas et coloribus vivis ornandas curavit sumtusque fecit *Joh. Elias Haid*, Chalcographus Augustanus. Augsb. 1790.

53. Analyses Florum e diversis Plantarum generibus, omnes etiam minutissimas eorum externas partes demonstrantes, ad eruendum harum partium characterem genericum, philosophiam botanicam, et generum intimiores affinitates a Natura statutas; Auctore *A. J. G. C. Batch*. 4to. Vol. I. Fascic. i. Tab. 1.—x. Fascic. ii. Tab. xi.—xx. Halæ Magdeburgicæ, 1790.

54. Fungi Mecklenburgenses selecti; Auctore *H. J. Tode*. Fascic. I. nova fungorum genera complectens c. Tab. æneis vii. 4to. Lüneburg, 1790.

55. Dissertatio Inauguralis Medica de Thermis Marchio-Badenfibus; Auctore *Carolo Fri-*

derico Haug, Bada-Badenfi. 8vo. Argentorati, 1790.

56. Specimen Physicæ generalis five de Concretionē Corporum et Dissolutione; Auctore *Antonio Bucci* in Faventino Gymnasio Philosophiæ Professore. 8vo. Faenza, 1790.

57. *Ant. Josephi Cavanilles* Icones et Descriptiones Plantarum, quæ aut sponte in Hispania crescunt, aut in Hortis hospitantur. Vol. I. Folio. Matriti, 1790.

58. Dissertatio Inauguralis Medico-Therapeutica de Cortice Angusturæ; Auctore *Frid. Alb. Ant. Meyer*, Hamburgense. 8vo, Gottingæ, 1790.

In this dissertation the author gives a botanical description of the *Magnolia Glauca* LINN., on a supposition that the Cortex Angusturæ, as it is called, is the bark of that tree; but, on comparing the Angustura bark with the bark of the *Magnolia Glauca*, we do not find the least ground for this conjecture*, which, it seems, originated

* Mr. Brande, in an ingenious and valuable work on this subject lately published, (see article 23 of the present Catalogue) observes also, that having procured and dried the barks of two species of *Magnolia*, the *Glauca* and *Grandiflora*, he found them to differ completely from the Angustura.

originated with Mr. Heyer, in a paper on this subject inserted in the Brunswick Magazine, Part V. for the year 1790.

59. *Dissertatio Inauguralis medica de Cortice Angusturæ ejusque usu medico; Auctore Francisco Ernesto Filter, Nordhusano.* 4to. Jenæ, 1791.

In this dissertation also we find the author mentioning the conjecture lately thrown out in Germany relative to this bark being the produce of the *Magnolia Glauca*. He relates some instances of its efficacy in intermittents; and recommends it likewise as a tonic and antiseptic remedy.

60. *De Ophthalmia recens natorum; Auctore Johanne G. Götz.* 4to. Jena, 1791.

61. *De nonnullis quæ ad usum medicum succorum Vegetabilium recentium spectant; Auctore Wilh. Aug. G. Manniske.* 4to. Jena, 1791.

62. *Historia Chirurgico-anatomica Facultatis Medicæ Ingoldstadiensis ab Universitate anno*

Some persons in this country have asserted that the *Cortex Angusturæ* is the bark of the *Brucea Antidysenterica*, or *Wooginos* of the Abyssinians; but the dried bark of this shrub is found to be very different from the *Cortex Angusturæ*.—EDITOR.

1472 condita ad annum 1788; Auctore *Hen. Palmæ Von Leveling*. 4to. Ingoldstadt. 1791.

63. *Icones Plantarum Syriæ rariorum, Descriptionibus et Observationibus illustratæ*; Auctore *Jacobo Juliano La Billardiere*. Decas prima. 4to. Lutetiæ Parisiorum, 1791.

64. *Dissertatio Inauguralis Medica sistens quædam Medicamenta Rossorum Domestica*; Auctore *Joanne Friderico Grabl*, Kioviano. 4to. Jenæ, 1790.

We have here an account of the good effects of an infusion of the *Myrica Gale* LINN. (in the proportion of half an ounce of the dried plant to a pint of water) in chronic rheumatism; together with some observations on the medicinal effects of the Russian liquor called *Kwas*.

65. *Josephi Eyerel Commentaria in Maximiliani Stollii Aphorismos de cognoscendis et curandis Febribus*. Tom. III. 8vo. Viennæ, 1790.

66. *Diff. Inaug. Medico-Botanica de necessitate et utilitate Studii Botanici*; Auctore *Ernesto Carolo Rodschied*, Hanovienfi. 8vo. Marburgi, 1790.

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